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UNITED STATES DEPARTMENT OF AGRICULTURE
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Number 10.

Bibliographical Contributions

October, 1925



REFRIGERATION AND COLD STORAGE

A Selected List of References Covering
the Years 1915-1924 and the Early Part of 1925

Compiled by Louise O. Bercaw
Bureau of Agricultural Economics Library

Washington, D. C.

UNITED STATES DEPARTMENT OF AGRICULTURE

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Bibliographical Contributions.

- No. 1. A check list of the publications of the Department of Agriculture on the subject of plant pathology, 1837-1913. Prepared in the Bureau of Plant Industry Library. 1919. (Superseded by No.8)
- No. 2. Check list of publications of the state agricultural experiment stations on the subject of plant pathology, 1876-1920. Prepared in the Bureau of Plant Industry Library. 1922.
- No. 3. Check list of publications issued by the Bureau of Plant Industry, United States Department of Agriculture, 1901-1920 and by the divisions and offices which combined to form this bureau, 1862-1901. Prepared in the Bureau of Plant Industry Library. 1921.
- No. 4. Bibliography on the preservation of fruits and vegetables in transit and storage with annotations. Prepared in the Bureau of Markets and Crop Estimates Library. 1922.
- No. 5. Index to some sources of current prices. Prepared in the Bureau of Agricultural Economics Library. 1923.
- No. 6. Partial list of publications on dairying issued in the United States. 1900 to June, 1923. Prepared in the Bureau of Animal Industry Library. 1923.
- No. 7. Bibliography on the marketing of agricultural products. Prepared in the Bureau of Agricultural Economics Library. 1924. (Superseded by U. S. Department of Agriculture Miscellaneous Circular 35).
- No. 8. Author and subject index to the publications on plant pathology issued by the U. S. Department of Agriculture up to January 1, 1925. Prepared in the Bureau of Plant Industry Library. 1925.
- No. 9. World food supply. A selected bibliography. Prepared in the Bureau of Agricultural Economics Library. 1925.
- No. 10. Refrigeration and cold storage. A selected list of references covering the years 1915-1924 and the early part of 1925. Prepared in the Bureau of Agricultural Economics Library. 1925.

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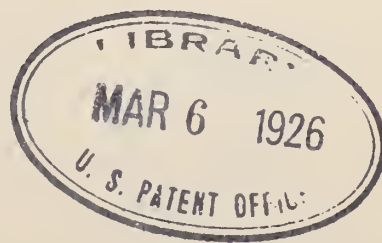
Bibliographical Contributions

October, 1925

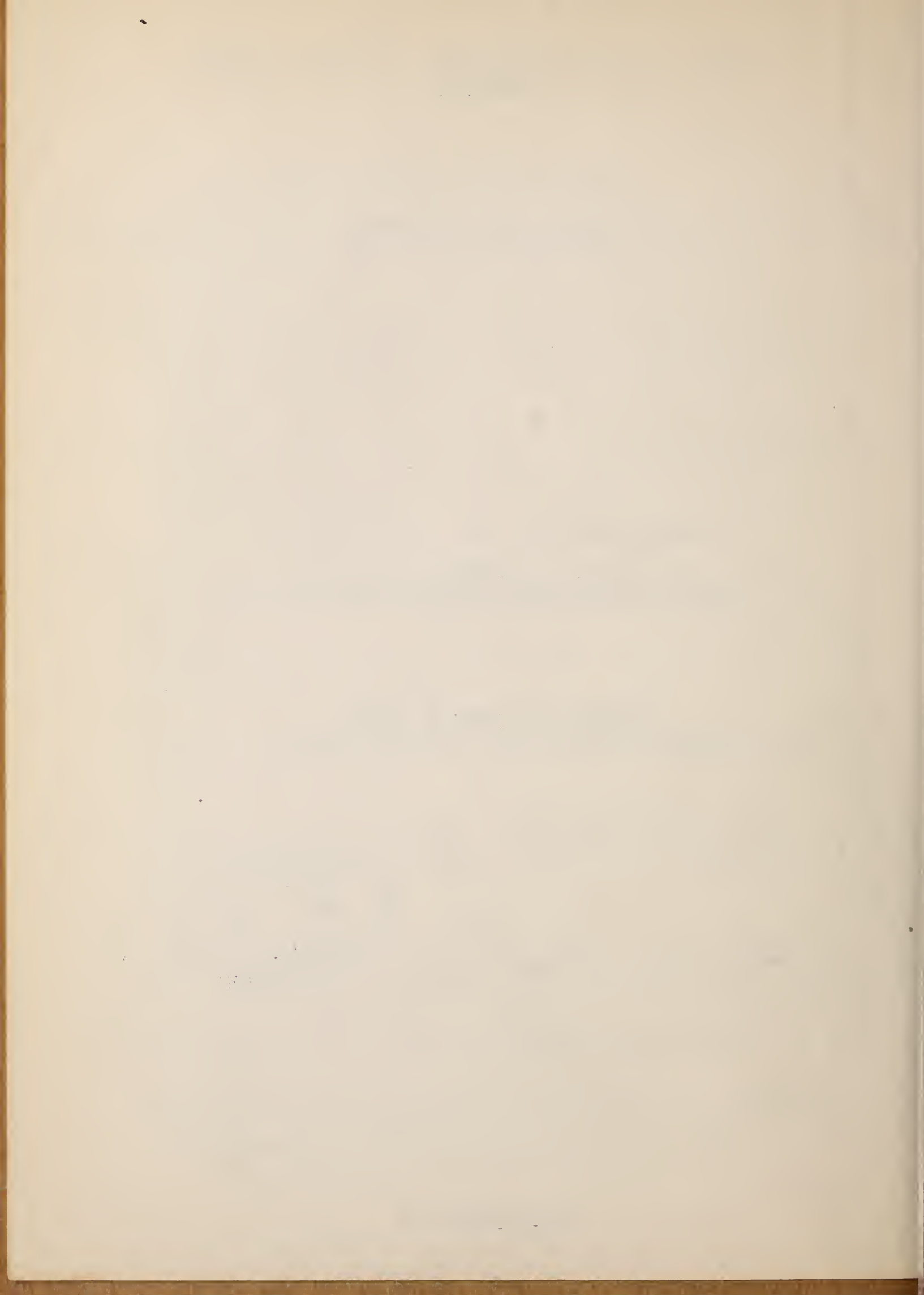
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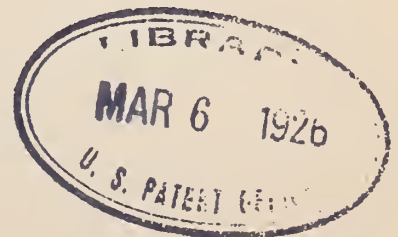


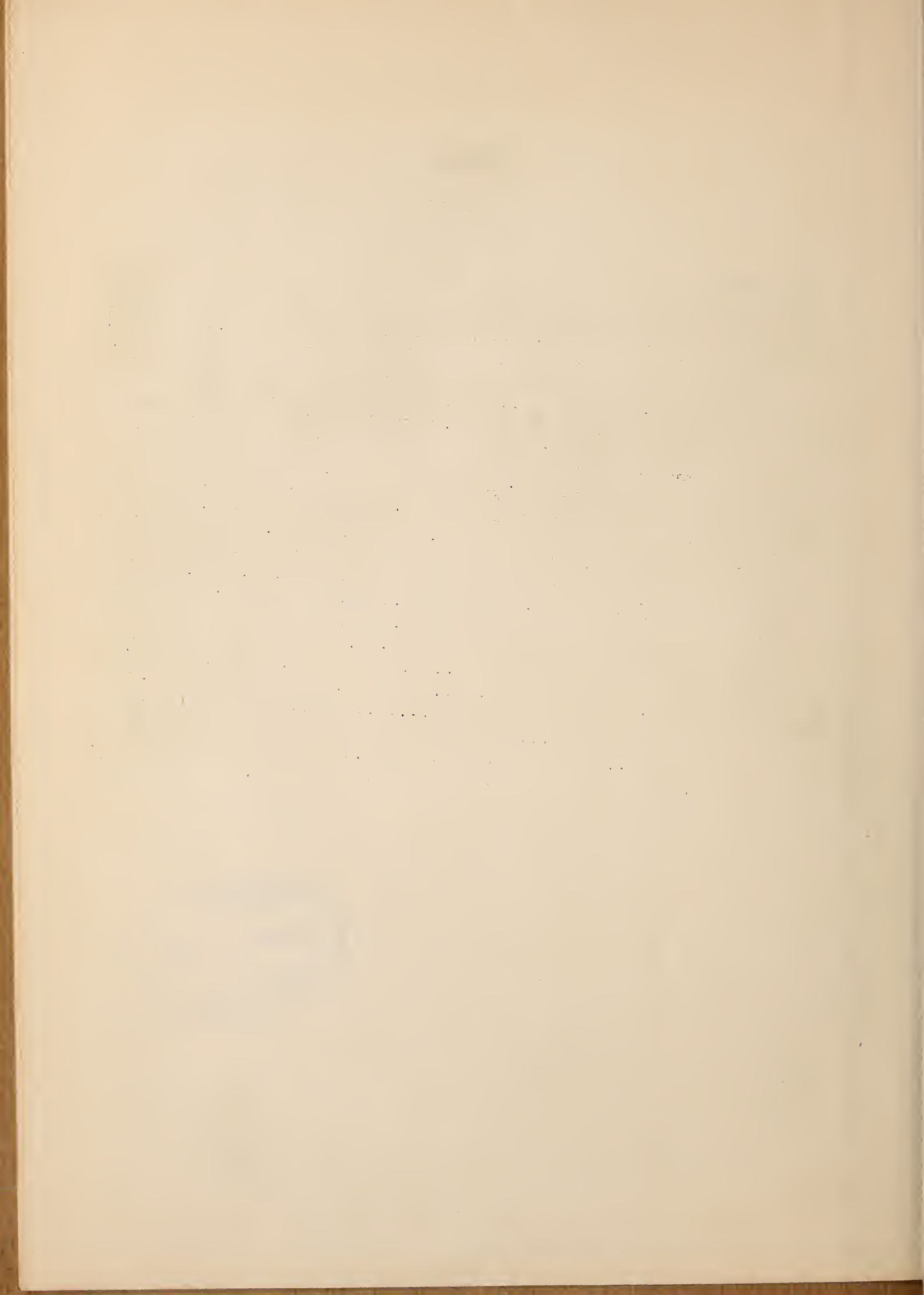
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INTRODUCTION

This bibliography was first planned in response to a request for a bibliography on the construction and operation of cold storage plants for the handling of dairy and poultry products. After the compiling of the material had been begun it was decided to enlarge the scope to include other commodities, - such as fruits, vegetables, furs, etc. - but to limit it as to subject matter and date of material included.

References to literature relating to pre-cooling and refrigeration as applied to transportation have been omitted, except when they occur in publications included for other reasons. This omission may be covered in a large measure by the use of the Bibliography on the Preservation of Fruits and Vegetables in Transit and Storage, by Katharine G. Rice, issued in 1922 as Bibliographical Contribution No. 4.

Material published prior to 1915 has also been omitted with the exception of U. S. Department of Agriculture publications, but the bibliographies and the files of periodicals and proceedings of societies which have been listed cover earlier dates. As a rule, references to material in the annual reports of the agricultural experiment stations have not been included.

The index of the bibliography is designed to bring out the names of all authors mentioned, and all references to commodities and to such other subjects as the user might otherwise have difficulty in locating. Such subjects as the effect of cold storage on quality and the proper temperatures for cold stores have been omitted since they are to be found in practically all books on the subject of cold storage in general or in relation to specific commodities.

Sources Consulted

1. Card catalogues in the following libraries:
 - U. S. Department of Agriculture.
 - U. S. Department of Agriculture. Bureau of Agricultural Economics.
 - Library of Congress.
2. Indexes:
 - Agricultural Index, 1916 - April, 1925.
 - Published by the H. W. Wilson Co.,
 - 958 University Ave., New York City.
 - Experiment Station Record, v.1 - v.52, no.5, April, 1925. Published by the Office of Experiment Stations, U. S. Department of Agriculture, Washington, D. C.

Industrial Arts Index, 1915 - May, 1925.

Published by the H. W. Wilson Co.,
958 University Ave., New York City.

Public Affairs Information Service. Bulletin, 1914 - May 30, 1925. Published by Public Affairs Information Service, 11 West 40th St., New York City.

3. Bibliographies and certain volumes of the periodicals listed were consulted for references within the scope of this bibliography.

Mary G. Lacy, Librarian,

Bureau of Agricultural Economics,

U. S. Department of Agriculture.

October 5, 1925.

REFRIGERATION AND COLD STORAGE

A Selected List of References Covering the Years 1915-1924 and
the Early Part of 1925.

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Bibliographies and Books Containing Bibliographies

- American association of ice and refrigeration. Committee on papers and lectures. Bibliography of American literature relating to refrigeration, with synopses of papers and reports... by Peter Neff. Chicago, 1916-[1922?] [4 v.]
[v.1] covers part of the year 1915. 56p. 241.4 Am32
[v.2] covers the years 1916 and 1917. 171p. L.C.
[v.3] covers the years 1918 and 1919. 108p. L.C.
[v.4] covers the years 1920 and 1921. 124p. 241.4 Am32
- American association of refrigeration. Committee on papers and lectures. Catalogue of publications, periodicals and pamphlets in the library of the American association of refrigeration, including a list of publications contained in various public libraries of the United States. Chicago, 1916. 15p. 241.4 Am32C
- American society of refrigerating engineers. Heat transmission of insulating materials. Report of the Insulation committee, annual meeting, 1922. Rev. to 1924. N. Y., 1924. 114p. 334 Am33
Bibliography, compiled by Charles H. Herter, with the cooperation of A. J. Wood and E. F. Grundhofer: p.95-114.
- Ferretti, Uberto. L'industria del freddo e le sue applicazioni all' igiene, all' agricoltura, ai commerci, ecc. Rocca San Casciano, Licinio Cappelli, 1909. 445p. 295 F37I
Bibliografia: p.437-442.
- New York (City) Market commission. Report of the Mayor's market commission. [N.Y., J. J. Little & Ives co.] 1913. 311p. 280.3 N482
Refrigeration at the market center, by M. E. Pennington: p.135-137.
Cold storage of food products (Bibliography): p.282-286.
- U. S. Department of agriculture. Library. Bibliography on the preservation of fruits and vegetables in transit and storage, with annotations. Contributed by the Library of the Bureau of markets and crop estimates. Washington, June, 1922. 76p. Mimeographed. (Bibliographical Contributions no.4) 1 L61Bi
Compiled by Katharine G. Rice.

U. S. Superintendent of documents. Foods and cooking, canning, cold storage; home economics. List of publications... for sale by Superintendent of documents. Washington, 1925. 11p. 242.1 Un34P
Cold storage: p.3.

Periodicals and Proceedings of Societies

American association of ice and refrigeration. Proceedings of the annual meeting, 1st-date, 1910-date. 295.9 Am3

American warehousemen's association. Bulletin. Pittsburgh. 295.9 Am32B

U. S. Dept. Agr. Library has v.2, no.2-date; Dec., 1900-date.

These bulletins contain each month a section on Cold Storage which gives news of interest to cold storage warehousemen.

American warehousemen's association. Proceedings of the annual meetings. 297.9 Am32

U. S. Dept. Agr. Library has 10th-date; 1900-date.

The reports, papers and addresses of the Cold Storage Division of the Association are included in the proceedings of the annual meetings.

Cold. [monthly] Calcium, N. Y., Madison Cooper co. 295.8 C671

U. S. Dept. Agr. Library has v.1, no.5-v.9, no.2; March, 1910-Dec., 1917.

An illustrated monthly magazine, the publication of which has been suspended, containing articles such as the following: A cold storage house suggestion in food conservation for country locations [plans]; A country resort cold storage and ice storage combined [plans]; An economical fruit cold store [plans].

Cold storage and ice association. Proceedings. London. May, 1900-1921. v.1-17, no. 1. 295.9 C67

Cold storage and produce review. London. 295.8 C672

U. S. Dept. Agr. Library has v.4, no.44-date; 1898-date.

A monthly publication of interest particularly to refrigerating engineers, cold store managers, and the produce people, which contains editorials, news items, a practical refrigeration section, and articles of which the following are samples: The economic value of insulation; The handling of frozen produce in London; Small refrigerating plants and the thermodynamical properties of refrigerating liquids.

Title, April, 1898-July, 1910: Cold Storage and Ice Trade Review.

Distribution and warehousing. N. Y. 288.8 T68

U. S. Dept. Agr. Library has v.3-date; Jan. 1909-date.

Formerly published under the following titles: Team Owners' Review; Transfer and Storage.

An illustrated monthly periodical containing articles and news items of interest to warehouse and storage men. Articles similar to the following - Billion-dollar warehouse industry is indicated by 1925 directory

figures; Cold storage as a public necessity, by W. D. Sammis - are of particular interest to the cold storage trade.

In addition to the regular numbers an annual warehouse directory number is issued.

Ice and cold storage; an illustrated review of the ice-making, cold storage and refrigerating industries. London. 295.8 Ic22

U. S. Dept. Agr. Library has v.11-date; Jan., 1908-date.

A monthly publication containing editorials, news items, and signed articles of interest to the trade.

Ice and refrigeration. Chicago, Nickerson & Collins co., June, 1891-date. v.1-date. 295.8 Ic2

"A monthly review of ice, ice making; refrigerating, cold storage and kindred trades." - Explanatory title.

Institut international du froid. Monthly bulletin of information on refrigeration (English edition) Paris, Jan., 1920-date. v.1-date.

295.9 In7

"Supersedes the Monthly bulletin of the Association internationale du froid (English edition) which was published 1910-19."

"Contains abstracts of articles on refrigeration" classified under the following headings: Scientific questions; Refrigerating material; General applications of refrigeration; Refrigerated transport; Legislative questions; Instruction and propagation; and General economics and statistics.

International association of refrigeration. Bulletin [monthly] (English edition) Paris. 295.9 In8

U. S. Dept. Agr. Library has v.1-10; Aug., 1910-Dec. 1919.

"Probably superseded by the Monthly Bulletin of Refrigeration (English edition) issued by the Institut International du Froid, Paris, q.v."

International congress of refrigeration, 4th, London, 1924. [Papers]

295.9 In82

These are summaries of papers which will probably appear later in the proceedings of the Congress.

U. S. Dept. Agr. Library has also the reports and proceedings of the first three congresses.

Kholodil'noe delo. Mookba, Jan./April, 1923-date. [v.1] no.1/4-date.

295.8 K522

This periodical, earlier numbers of which have the title, Kholodil'noe i Boenskoe Delo, is "published by the Russian government trust of packing slaughterhouses and cold produce, which is working under the general direction of the Commissariat of Public Food ('Narcomprod')... The periodical is devoted mostly to refrigeration practice in many big refrigerating plants, which are now all under government supervision conducted by government engineers and other officials". - Refrigerating Engineering, v.2, no.5, Nov., 1924, p.180.

Milan. R. Scuola superiore di agricoltura. Stazione sperimentale del freddo. [Publications] Pavia. 295.9 M58
U. S. Dept. Agr. Library has fasc. 1-3; 1920-1921.

New York State cold storage association.

Minutes of the annual meetings of this association, which are issued annually, contain addresses and discussions on the subject of cold storage. U. S. Dept. Agr. Library has the minutes for 1916 and 1918.

Refrigerating engineering: [monthly] N.Y., The American society of refrigerating engineers, Nov., 1914-date. v.1-date. 295.9 Am32J
v.1-8 (bi-monthly) have title: A.S.R.E. Journal.

Contains articles of interest primarily to refrigerating engineers. Gives each month a summary of cold storage holdings in the United States, and a summary of the United States cold storage holdings of fish (Reports of the Bureau of Agricultural Economics, U. S. Department of Agriculture).

Refrigerating world; incorporating Cold storage & ice trade journal. N.Y., The Ice trade journal co. 295.8 C67

U. S. Dept. Agr. Library has v.3-date; Jan. 1900-date.

An illustrated monthly periodical containing signed articles; editorials; sections devoted to practical problems, association news, and monthly digests of ice and refrigeration.

Refrigeration; incorporating Ice; a monthly publication for ice, refrigerating and cold storage plants. Atlanta, Ga., Refrigeration publishing co. 295.8 Ic23

U. S. Dept. Agr. Library has v.2-date; Jan., 1908-date.

This publication is the official journal of the Southern Ice Exchange.

La revue générale du froid et des industries frigorifiques. Paris, Jan., 1920-date. t.1-date. 295.8 R322

A monthly publication "formed by the union of le Froid and l'Industrie frigorifiques."

"Organe officiel de l'Association française du froid."

"Official organ of l'Association belge du Froid, May 1921-."

Zeitschrift für die gesamte kälte-industrie zugleich...Zeitschrift des Deutschen kälte-vereins. Berlin. 295.8 Z3

U. S. Dept. Agr. Library has v.23-date; Jan., 1916-date.

A monthly publication containing signed articles, etc.

General

American association of ice and refrigeration. Report of Committee on manufacturing risks and special hazards. (In its Proc., 5th, 1915, p.71-83) 295.9 Am3

Endeavors "to give a summary of the fire loss experience on this class of property [cold storage warehouses] and to point out possible methods of improvement to those planning the erection of or alterations in cold storage plants."

American public health association. Committee on cold storage. Reports.
(In Amer. Jour. Public Health, v.6, no.10, Oct., 1916, p.1119-1121;
v.7, no.3, March, 1917, p.306-315; v.12, no.5, May, 1922, p.382-385)
449.9 Am3J

Bailey, E. W. Local cold storage problems for southern Illinois. (In Ill.
horticultural soc. Trans., n.s., v.50, 1916, p.523-540) 81 Il6
"Temperature is the important factor in successful fruit marketing.
Cold storages and precooling. Discussion." - U. S. Dept. Agr. Library.
Bibliographical Contributions, no.4, p.1.

Browne, M. W. Perishable food products. (In Refrigerating World, v.58,
no. 12, Dec. 1923, p.23-25) 295.8 C67
"An address delivered before Missouri Warehousemen's Association in
convention... October 19, 1923" in which the author discusses his "Cold
Storage Temperatures and Humidity Chart," and the "Freezing of Fruits
and Vegetables, as well as Other Perishable Food Products."

Brûna, Joseph. La cuisine des aliments frigorifiés. [Poitiers, Société
française d'imprimerie] 1919. 40p. 389.25 B83
"Extraits de la revue 'Le Froid'".

Issued by the Association Française du Froid, Paris.

On p.6 the author writes that the observations made and the advice
given in this pamphlet are the result of practical experience which he
gained in the cooking of poultry, meat, fish, and game.

Canada. Cost of living commission. Report of acting commissioner W. F.
O'Connor... re cost of living. Cold storage in Canada. Ottawa, 1917.
63p. (Sessional paper no.210a) 295 C16

"In this report are discussed cold storage conditions in Canada,
indicating the classes and character of cold storage establishments,
including abattoirs, and the margins of profit for 1916-19." - Experi-
ment Station Record, v.38. p.392.

A summary of this report is to be found in The Labour Gazette (Canada)
v.17, no.8, Aug., 1917, p.640-650.

Canada. Department of agriculture. Office of the dairy and cold storage
commissioner. Cold storage temperatures. Ottawa, 1921. 2p. (Circ.31)
44.9 C16B

Lists of temperatures which may be used as a guide for the cold stor-
age of a number of commodities.

Crain's market data book and directory of class, trade and technical publica-
tions. 1st ed. Chicago, G. D. Crain, jr., 1920. 462p. L.C.

A brief account of the refrigerating industry and a list of period-
ical publications are to be found on p.402-403 under the heading Re-
frigerating Industries.

Franklin, I. C. Cold storage in marketing food products. (In Refrigerating
World, v.52, no.8, Aug., 1917, p.21-22; extracts from this were issued
in mimeographed form as Mem. S-63 by the U. S. Bureau of Fisheries.)
295.8 C67 157.51 C67

Franklin, I. C. Effect of the war upon the cold storage industry. (In American warehousemen's association. Proc. 1919, p.184-201; also in Ice and Refrigeration, v.58, no. 1, Jan., 1920, p.47-52, with title, Cold Storage Industry as Affected by War) 297.9 Am32 295.8 Ic2
Illustrated by maps showing space under refrigeration in packing houses and cold storage plants, Jan. 1, 1919; and by graphs showing cold storage holdings of frozen poultry, pork, fish, lamb, mutton and beef, and dry salt pork, case eggs, creamery butter, pickled pork, lard, barreled apples, and cheese, for 1916 to 1920.

Franklin, I. C. The service of cold storage in the conservation of food-stuffs. Washington, 1918. (In U. S. Dept. Agr. Yearbook, 1917, p. 363-370)

"The development of the cold-storage industry and something of its uses and abuses are treated of in this article." - Experiment Station Record, v.39, p.472.

Galensovsky, A. F. Refrigeration in Russia. (In Ice and Refrigeration, v. 67, no. 1, July, 1924, p.18-19) 295.8 Ic2

"Development and present status of ice making and cold storage industries in Russia... developments during 1921, 1922 and 1923."

Gliddon, P. N. Ozone and cold storage. (In Ice and Refrigeration, v.67, no. 1, July, 1924, p.7-8) 295.8 Ic2

"Paper ... presented at the meeting of the Pacific States Cold Storage Warehousemen's Association - difficulty of obtaining truly fresh air and the inadvisability of its use pointed out."

Gossman, J. C. History of refrigeration. (In Ice and Refrigeration, v. 66, no.4-6, April, 1924-June, 1924, p.297-299, 446-448, 541-542; v.67, no.1-6, July, 1924-Dec., 1924, p.33-34, 110-112, 181-183, 226-228, 328-330, 428-430; v.68, no. 1-2, 4, Jan., 1925-Apr., 1925, p.70-71, 135-137, 335-336; to be continued) 295.8 Ic2

In the introduction the author writes "It is of course realized that this first attempt to write a historical review covering a subject such as refrigeration can only be partially complete. Nevertheless it is a beginning. Corrections, additions and suggestions are heartily welcome so that with their help the attempted goal may be more fully accomplished."

Grow, G. Selling cold storage. (In Power, v.56, no.14, Oct. 3, 1922, p.541-2) 290.8 P87

This article gives the main portion of the data received from a large cold-storage company in answer to a request for the usual price made by refrigerating companies for cold storage when the brine is pumped to the consumer's ice box or cold-storage room. - Adapted from the text.

Hardy, W. B. Scientific problems of cold storage industries. (In A.S.R.E. Jour. v.6, Nov., 1919, p.201-208; abstracted in Mechanical Engineering, v. 42, no.6, June, 1920, p.360-361) 295.9 Am32J 291.9 Am3J

"The author... discusses the wider biological aspect of food preservation. Essentially, food preservation by means of cold storage means an attempt to stop certain organic processes which would otherwise lead to the decomposition of food." - Mechanical Engineering, v.42, no.6, June 1920, p.360. Original article not seen.

Hastings, C. J. Refrigeration and its relation to public health. (In Refrigerating World, v.59, no.8, Aug., 1924, p.29-30) 295.8 C67

A résumé of a paper read at the fourth International Congress of Refrigeration.

Hawkins, L. A. Investigations on subjects relating to refrigeration. (In Ice and Refrigeration, v.67, no.3, Sept., 1924, p.152-154) 295.8 Ic2

"Description of results achieved by national and state investigators in solving problems relating to refinements of methods of applying refrigeration as set forth in paper presented at fourth International Congress of Refrigeration. Work of Bureau of Standards."

Horne, F. A. Cold storage and refrigeration. Chicago, 1923. 36p. (Amer. Institute of Agriculture. Lesson E) 280.3 Am34A

This "lesson" is divided into various sections, some of the topics being: Why people eat more perishables; The wholesomeness of cold storage; The length of time for cold storage; Cold storage facilities; Cold storage business methods; and Laws and the future of cold storage.

Horne, F. A. Cold storage and United States food control. (In Ice and Refrigeration, v.55, no.3, Sept., 1918, p.872) 295.8 Ic2

"An address delivered before the New York State Cold Storage Association dealing with the work of the Food Administration in connection with the cold storage industry. Explains many of the rules promulgated." - Bibliography of American literature relating to refrigeration... 1918 and 1919, p.30.

Horne, F. A. Cold storage - its capabilities and how to best utilize and extend them. (In Amer. Jour. Public Health, v.8, no.3, March, 1918, p.221-227) 449.9 Am3J

Read before the Food and Drugs Section, American Public Health Association, at Washington, D. C., October 18, 1917.

Horne, F. A. Cold storage warehousing in the United States. (In Ice and Refrigeration, v.67, no. 3, Sept., 1924, p.148-151; also in Refrigerating World, v.59, no. 8, Aug., 1924, p.15-19) 295.8 Ic2 295.8 C67

"Paper presented at fourth International Congress of Refrigeration in which the author describes the development of the cold storage industry, presents some statistics concerning its magnitude, and discusses various features concerning its economic value."

Ice and cold storage trades' directory and handbook... for all connected with the refrigerating industry and allied trades in the United Kingdom. London, Iliffe & sons, ltd. [19 -] L. C.
Not seen.

Ice and refrigeration. Blue book and buyers' guide; a directory of the ice making, cold storage, refrigerating and auxiliary trades... [6th ed.] 1923. Chicago, Nickerson & Collins co., 1923. 1288 p. 295 Ic2

A complete list of ice factories, cold stores, packing houses, breweries, dairies, creameries, meat markets, hotels, restaurants, and all

establishments using mechanical refrigeration in the United States and Canada. - Title page, 1922 issue.

Jørgensen, Ingar, and Stiles, Walter. Cold storage of food. (In Scientific Amer. Supplement, v.88, no.2279, Sept. 6, 1919, p.150-151; v.88, no.2281, Sept. 20, 1919, p.178,192) 470 Sci250

The work is in two parts. Pt. 1, Consideration of the problems involved fundamentally aids in developing appropriate types of storage; Pt. 2, A critical consideration of the physical changes in meat preserved by cold storage.

Kapadia system of preservation. (In Cold Storage and Produce Review, v.19, no.220, July 20, 1916, p.154-155) 295.8 C672

"Conservation through the presence of an inert gas. Excellent for delicate fruits." - U. S. Dept. Agr. Library. Bibliographical Contributions, no.4, p.5.

Kehoe, R. P. Ice manufacture combined with cold storage. (In Refrigerating World, v.49, no.6, June, 1915, p.25-26) 295.8 C67

"Ice manufacture more profitable when combined with cold storage. Table."

Kent, F. Cold storage, its advantages, and disadvantages. (In Ice and Refrigeration, v.48, no.3, March, 1915, p.135) 295.8 Ic2

"Paper read before Southern Ice Exchange meeting, Feb., 1915. True information regarding cold storages should be disseminated."

King, C. L. Lower living costs in cities. A constructive programme for urban efficiency. N.Y. and London. D. Appleton and co., 1915. 335p. (National municipal league series) 284.4 K58

On p.37-43, 78-60 are discussed the following subjects: Advantages of, and charges for, cold storage; Effect of cold storage on prices; Number of cold storage warehouses in the United States; Time of produce in cold storage; and Wholesomeness of food in cold storage.

Love, George, and Chapman, C. W. Cold storage operating. (In Ice and Refrigeration, v.66, no. 1, Jan., 1924, p.40-41) 295.8 Ic2

Includes a description of a cold storage house operated by the authors. Gives degrees of temperature and humidity necessary in the storage of fruits, poultry, and dairy products.

McKay, G. H. Various methods of refrigeration and its advantages to the public. Albany, 1922. (In N. Y. Dept. Farms and Markets. Agr. Bul. 147, p.15-17) 2 N482

This bulletin (Agr. Bul. 147) is a revision of N. Y. Dept. Agr. Bul. 79.

Marble laboratory, inc. Cold storage research laboratory. Description of laboratory established for the purpose of carrying on experiments and research work in storage of perishable products - a public spirited enterprise established by private enterprise - some of the results already obtained. Canton, Pa., The Marble laboratory, inc. [1922?] 13 p. 295.9 M32

"Reprinted from the August 1922 issue of Ice and Refrigeration, Chicago." Contains plans.

Marseille. Compagnie des docks et entrepôts. Établissement frigorifique. Marseille, Typographie et lithographie Barlatier, 1923. 29p. 295 M35
Discusses origin and development of the refrigerating establishment, arrangement and insulation of cold rooms, production of cold, management, operation, and the keeping of various foods - butter, cheese, eggs, fruits, etc. Contains illustrations and plans.

Matthews, F. E. On the facilitation of production and distribution of agricultural products through cold storage. Jan. 16, 1919. 6 numbered leaves. Typewritten. Fam. Coll.

Gives a number of important practical ways in which "the Bureau of Markets is in [a] position to render valuable assistance."

Stapled in with this article is a 2-leaved article: Extended Food Conservation in Cold Storage.

Monvoisin, A. La conservation par le froid des denrées périssables. Paris, Dunod, 1923. 502p. L.C.

Chemistry and microbiology of foodstuffs. Production of refrigeration. Use of refrigeration in the conservation of meat, eggs, dairy products, in sericulture, horticulture, floriculture, baking and in breweries. - Translation of alternative title.

Neff, Peter. Progress of refrigeration in America. (In Ice and Refrigeration, v.67, no.3, Sept., 1924, p.161-162; also in Refrigerating World, v.53, no.8, Aug., 1924, p.19-20) 295.8 Ic2 295.8 067

"Outstanding features of the development of refrigeration set forth in paper presented at fourth International Congress of Refrigeration."

New York (State) Department of farms and markets. Division of foods and markets. Foods and markets, v.1, no.8, April, 1919. 36p. 280.38 F73

This is a special cold storage number which deals with the following subjects: The value of cold storage; Cold storage plants and state regulation; The present cold storage law; Situation in regard to fish storage; Rules and regulations relating to cold storage; Report of state cold storage survey; Cold storage holdings for April 1, 1919; and a short bibliography.

Newland, H. O. The romance of modern commerce. A popular account of the production of cereals, tea, coffee, rubber, tobacco, cotton, silk, wool, timber, cattle, oils, furs, precious stones... Philadelphia, J. B. Lippincott co., 1920. 298p. L. C.

Cold storage: p.190-197.

Nickerson, J. F. Development of refrigeration in the United States. (In Amer. soc. refrigerating engineers. Jour. v.2, no.3, Nov., 1915, p.66-82) 295.9 Am32J

A paper read before the International Engineering Congress, San Francisco, Cal., September, 1915. "A brief historical review of the evolution of mechanical refrigeration in the United States from the theoretical and experimental to the practical stage." - p.66.

Pacoret, Étienne. La technique de la production du froid et de ses applications modernes. Paris, Dunod, 1920. 416p. 295 Fl2

Discusses methods of refrigeration; construction and installation of plants; applications of refrigeration (conservation of foodstuffs - meat, fish, butter, milk, eggs, fruit, vegetables - and flowers); application of refrigeration in the different industries; transportation, etc.

Parker, G. W. Economic importance of the cold storage business. Ithaca, N. Y., February, 1918. 9 numbered leaves. Typewritten. Pam. Coll.

A discussion of the uses of cold storage and its economic importance. Bibliography: leaf 9.

Pease, H. D. The recent investigations of the nutritive value of foods as they affect the cold storage industry. (In Amer. warehousemen's assoc. Proc., 1916, p.282-301) 297.9 Am32

Includes several pages of discussion participated in by the members of the association.

Pennsylvania. Commission to investigate cold storage. Report, March, 1915. (In Pa. Legislative Jour. House, April 1, 1915, p.1177-1198)

Commission finds that cold storage is necessary, that it increases the available supply of food, and tends to make the prices lower and steadier. The commission does not favor branding. It recommends uniform legislation by the states.

Not seen. Note taken from Public Affairs Information Service, Bulletin, 1916, p.54.

Philips, B. J. Chart of cold storage commodities as security. (In Refrigeration, v.23, no 2, Sept., 1918, p.44-45, 52-53, 58) 295.8 Ic23

"The Federal Reserve Board, recognizing that farm products when properly stored are a much safer security, has gathered information as to proper storage conditions, percentage of shrinkage for each of several commodities which are considered staple and used as security for loans. For the benefit of bankers explains the functions of cold storage." - Bibliography of American literature relating to refrigeration... 1918 and 1919, p.29.

Ruddick, J. A., and Burgess, Joseph. The cold storage of food products, with some notes on insulation and warehouse management. Ottawa, 1915. 23p. (Canada. Dept. Agr. Dairy and Cold Storage Branch. Bul. 44) 44.9 Cl6B

Proposed "as a popular discussion of the subject for the information of those who may have a commercial interest in it, and as a guide to

inexperienced persons who have embarked in the cold storage business." Includes cold storage of apples, eggs, furs and woolens; temperatures; problems of management; etc.

Rural information bureau. The cold storage of agricultural produce.

[Arcot Orchards, Sidmouth, 1923] 2p. (Leaflet 361) 10 R833

An article, reprinted from the Evesham Journal of June 9th, 1923, which is a plea for the British farmer to "learn from the American farmer the art of utilizing cold storage for agricultural products."

Sherman, H. C. Food products. 2d ed., rev. and enl. N. Y., Macmillan co., 1924. 687p. 389 Sh5F

Cold storage [of eggs] and its regulation: p.177-183. Cold storage [meat]: p.196-197.

Starr, J. E. Refrigeration twenty-five years ago. (In Ice and Refrigeration, v.51, no.5, Nov., 1916, p.143-145) 295.8 Ic2

"Broadly then when 'little things are compared with big things,' we find that the use of refrigeration is very big compared to twenty-five years ago": p.145.

Summers, Maddin. Development of refrigeration in Russia. (In U. S. Bureau of Foreign and Domestic Commerce. Commerce Repts. no.142, June 18, 1918, p.1064-1068)

A summary of a report made in Dec., 1916, by M. T. Zarochentzeff, Secretary of the Moscow Refrigerating Committee.

Tekniske forenings tidsskrift. Special refrigeration congress edition.

[Copenhagen, 1924] 28p. 295 T23

48th annual series, issue of June 16, 1924.

Contents: Danish bacon, by Carl Madsen; Refrigerating practice in Danish export of agricultural produce: Table shewing exports of certain food stuffs and amounts of perishable goods handled by the Danish state railways, by G. L. Eir; The Danish Experimental Dairy, by the manager, Hansen; Freezing of meat and fish - "The Ottesen process"; The refrigerating plant at the Carlsberg breweries, Copenhagen, by I. P. Spangenberg; Mechanical refrigerating machines, by Sv. Aa. Andersen; Insulation for refrigerating rooms, by J. T. Lundbye.

U. S. Bureau of foreign and domestic commerce. Trade information bulletins 209, 229, 280, 330. Washington, 1924-1925. 157.7 C76Dt

Bul. 209: Ice-making and cold-storage plants in South America.

Bul. 229: Ice-making and cold-storage plants in Mexico, Central America, and the West Indies.

Bul. 280: Ice-making and cold-storage plants in Australia and New Zealand.

Bul. 330: Ice-making and cold storage plants in the United Kingdom.

The object of these bulletins is "to reveal the extent of ice-making and cold storage development in the countries mentioned," and they are "issued in an effort to present particulars of special value to American

manufacturers of ice-making and refrigerating equipment as well as to allied commercial interests." "A report for Canada will be issued at an early date."

U. S. Department of agriculture. Suitable storage conditions for certain perishable food products. Washington, 1918. 10p. (Bul.729)

Apples, potatoes, sweet potatoes, onions, cabbage, eggs, frozen eggs, poultry, butter, and fish.

U. S. Department of agriculture. Yearbook, 1911. Washington, 1912. 732p.

Economic results of cold storage. Special investigations by the Department: p.23-32.

U. S. Department of agriculture. Bureau of chemistry. Use of cold storage. Letter from the Secretary of Agriculture transmitting certain data on cold storage and cold-storage products, by Dr. H. W. Wiley. Washington, 1910. 23p. (61st Cong. 2d sess. Senate. Doc.486) 148 no.5659.

U. S. Department of agriculture. Bureau of public roads. Division of rural engineering. Domestic refrigeration. Washington, 1920. 4 numbered leaves. Mimeographed. (Information series 38) 1.9 R5311

Discusses mechanical refrigeration for domestic use, refrigerating medium, application, operation, retail prices of machines, and cost of operation.

Wassertechnik- lufttechnik, kältetechnik in sechs sprachen; deutsch, englisch, französisch, russisch, italienisch, spanisch. Mit 2075 abbildungen und formeln. München und Berlin, R. Oldenbourg; New York, McGraw pub. co., 1915. 1959p. L. C.

V.12 of an illustrated technical dictionary in German, English, French, Russian, Italian, and Spanish. It covers hydraulics, pneumatics, and refrigeration.

Weld, L. D. H. The marketing of farm products. N. Y., Macmillan co., 1916. 483p. 280.3 W45M

Cold storage as a factor in marketing: p.142-173.

Williams, H. E. Protection of food products from injurious temperatures. Washington, 1901. 26p. (U. S. Dept. Agr. Farmers' bul.125)

"The object of this bulletin is to furnish information regarding the temperatures that are injurious to food products and other perishable articles, under different conditions and during shipment, and to suggest methods of protecting the same from extremes of heat and cold": p.7. The commodities considered are fruits and vegetables, dairy products, fresh meats, poultry and eggs, game, fish, oysters, clams, canned fruits and vegetables. Cold storage is discussed.

Elements and Principles of Refrigeration, and
Construction and Equipment of Cold Storage Plants.

Armstrong cork company, Pittsburgh. Nonpareil corkboard insulation, for cold storage warehouses, ice plants, breweries, packing plants, fur storage vaults, dairies, creameries, ice cream plants, refrigerators, freezing tanks, and generally wherever refrigeration is employed or a heat insulating material of great efficiency for temperatures under 212° Fahrenheit is required. 1917 ed. Pittsburgh, Pa., Armstrong cork & insulation co. [1917] 151p. L.C.

Arrowood, M. W. Refrigeration; a practical treatise on the production of low temperatures as applied to the manufacture of ice and to the design and operation of cold storage plants. Chicago, American technical society, 1920. 272p. 295 Ar6

The section on cold storage deals with conditions for efficient preservation, insulation, methods of cooling, refrigeration required, and commercial storage.

British design for small cold storage. (In Ice and Refrigeration, v.57, no.4, Oct., 1919, p.144-146) 295.8 Ic2

Includes a plan (sketch design) for a warehouse of about 120 tons capacity, which can be constructed for approximately £3,000, exclusive of the cost of the land, issued by the British Director of Cold Storage.

Clausen, A. G. Heat transmission. Efficiency factors in the refrigerating system. (In Cold Storage and Produce Review, v.27, no.321, Dec., 1924, p.503-505) 295.8 C672

An excerpt from a technical paper presented at the Dec. 15, 1924, meeting of the British Cold Storage and Ice Association.

Colby, A. D. A Kansas orchard cold store. (In Ice and Refrigeration, v.52, no.2, Feb., 1917, p.84-85) 295.8 Ic2

"Particulars of an inexpensive construction for apple storage and low operating cost." - Explanatory title.

Ewing, Sir J. A. The mechanical production of cold. 2d ed. Cambridge, University press, 1921. 204p. 295 EW5

"A reprint of 'Howard' Lectures on the Mechanical Production of Cold, delivered before the Society of Arts in 1897, with additions and corrections."

Cold stores, Cooling of air by direct contact with cold brine. Heat insulation of cold rooms: p.116-122.

Fain, G. A., and Broach, W. E. Farm building plans available. Athens, July, 1922. 4p. (Ga. Agr. Col. Ext. Div. Bul. [Publication]) 275.29 G29B

Includes lists of plans for cold storage plants and other farm buildings, available for free distribution.

Faraday society, London. The generation and utilization of cold. (In its Transactions, no.53, v.13, pt.2, Dec., 1922, p.137-273) 382 F22

"A general discussion...held jointly by the Faraday Society and

the British Cold Storage and Ice Association on Monday, October 16th, 1922... London."

Graham, R. R. Cold storage on the farm, its value and how to provide for it. Toronto, 1924. 32p. (Ont. Dept. Agr. Bul. 306) 101 On8B

Includes plans for ice storage house, ice storage and cooling plant, small cold storage with ice above the cooling chamber, and household refrigerator and dumb waiter combination. The plans and description of the small cold storage were taken from a report by J. A. Ruddick. This bulletin is a revised edition of Bulletin 207, Ice Cold Storage on the Farm.

Greene, A. M., jr. The elements of refrigeration; a text book for students, engineers and warehousemen. 1st ed., 2d impression cor. N. Y., John Wiley & sons, inc. 1919. 472p. L. C.

"The aim... has been to bring together in a logical order the necessary data from which to design, construct, and operate refrigeration apparatus." - 1916 ed.

Cold storage: p.217-268.

Harding, L. A., and Willard, A. C. Mechanical equipment of buildings; a reference book for engineers and architects... volume II, Power plants and refrigeration. 1st. ed. N. Y., John Wiley & sons, inc., 1917. 759p. 291 H21

Chapter XXII, Heat transmission and construction of cold storage walls: p.643-664.

Harrison, W. B. New well water system for cold storage plant: a description of the water system of the Fehr cold storage co., Louisville, Ky. (In Ice and Refrigeration, v.66, no.4, April, 1924, p.295-296) 295.8 Ic2

Hastings, M. M. A cold-storage evaporimeter. Washington, 1909. 8p. (U. S. Dept. Agr. Bur. Animal Industry. Circ. 149)

"A practical apparatus for determining the humidity in storage houses."

Hausbrand, Eugen. Evaporating, condensing and cooling apparatus. Explanations, formulae and tables for use in practice... translated from the 2d. rev. German ed. by A. C. Wright... 3d English ed. London, Scott, Greenwood & son, 1919. 401p. 386 H29E

"The constant motive in writing this treatise has been the desire to provide as complete and reliable assistance as possible for the solution of the problems of the construction and working of apparatus for evaporating, condensing and cooling."

Henschien, E. F. Packing house and cold storage construction; a general reference work on the planning, construction, and equipment of modern American meat packing plants, with special reference to the requirements of the United States government, and a complete treatise on the design of cold storage plants, including refrigeration, insulation and cost data. Chicago, Nickerson & Collins co. [1915] 310p. 295 H39

"In describing methods of construction, the author has drawn largely from his own observation and experience of what has been successfully tried and tested in actual practice."

Hirsch, Moritz. Die Kältemaschine; Grundlagen, Berechnung, Ausführung, Betrieb und Untersuchung von Kälteanlagen. Berlin, Julius Springer, 1924. 510p. L. C.

A technical account of the underlying principles of refrigeration and their application, the influence of external conditions, etc., is followed by a description of the working of the various parts of the refrigerating machine, its use in the preservation of food, and the operation of the plant.

Hogue, D. B. A successful fruit storage house. (In Mich. state horticultural society. Annual report, 46th, 1916, p.48-50) 81 M68

The house which the writer describes "is one designed along lines that make for simplicity and serviceability at a lower cost than is usual for a storage house": p.49.

How refrigeration insulation is made. (In Scientific Amer., v.115, no. 26, Dec., 1916, p.567) 470 Sci25

"The process of making cork board."

Hull, H. B. Household refrigeration; a complete treatise on the principles, types, construction, and operation of both ice and mechanically cooled domestic refrigerators, and the use of ice and refrigerators in the home. Chicago, Wickerson & Collins co. [1924] 328p. 295 H87

Chapter headings are: Refrigeration units and theory; Ice for refrigeration purposes; Refrigerants; Heat transfer; Refrigerating systems; Types and constructions of household refrigerating machines; Types and construction of household refrigerators; Operation of ice refrigerators; Testing of ice refrigerators; Preservation of foods in the home; and Miscellaneous tables.

Kelley, H. H. Mechanical refrigeration. Atlanta, W. R. C. Smith pub. co. [1915] 94p. L. C.

Piping for cold stores: p.48-55. Insulation: p.56-72.

Lindvail, N. A. Modern construction of ice and cold storages. (In Ice, v.17, no.5, Dec., 1915, p.28-29) 295.8 Ic23

"Temperature variation and excess moisture must be overcome."

Lorenz, Hans, and Heinel, C. Neuere Kühlmaschinen; ihre Konstruktion, Wirkungsweise und industrielle Verwendung... 6., ergänzte Aufl. München und Berlin, R. Aldenbourg, 1922. 401p. L. C.

New refrigerating machines; their construction and use in industry. - Translated title.

There are no essential changes in the new edition. (Translation) - Preface to 6th edition.

The aim of the book is to avoid expensive theoretical digressions and to solve practical problems not only for technical engineers but for others, and in particular, for the owners and managers of refrigerating plants. (Translation) - Preface to 4th edition.

McDaniel, Homer. Equipment and operation of cold storage warehouse. (In Amer. assoc. of reirigeration. Proc., 1916, p.108-113) 295.9 Am3
Includes a discussion by members of the Association.

Macintire, H. J. The principles of mechanical refrigeration (a study course for operating engineers) N.Y., McGraw-Hill book co. inc., 1922. 252p. 295 M18P

Applications of refrigeration; cold storage, air and liquid cooling; Chapter X, p.227-248. Deals with humidity, kind of piping for cold storage, the bunker coil, the sharp freezer, cold storage details, etc.

Macintosh, H. J. Refrigeration study course - XVIII. Cold storage and packing-house refrigeration. (In Power, v.52, no. 22, Nov. 30, 1920, p. 855-857) 290.8 P87

Besides this lesson the study course consists of 20 articles which appear in volumes 51 and 52 of Power.

Matthews, F. E. An ideal standard cold storage warehouse... November 16, 1918. 5 numbered leaves. Typewritten. Pam. Coll.

The writer comes to the conclusion that "with the direct information and uniform bases for deriving other information, the design of an 'ideal' cold storage warehouse would be possible. Not all houses can be built on 'ideal' lines; but the setting up of an ideal, the advantages of which are clearly set forth by an authority carrying the weight of the U. S. Bureau of Markets could not but have an important influence toward the betterment of cold storage warehouse construction practice."

Mikkleson, W. H. Insulation, its uses and qualities as applied to cold storage and ice plants; heat transmission through various substances. (In Ice and Refrigeration, v.59, no.4, Oct.,1920, p.123) 295.8 Ic2

"Gives an illustration from two plants to show what insulation means; in the cases cited, shows a saving in a cold storage plant of \$148.95 per month. The two buildings were each 50' x 25' x 20'." - Bibliography of American Literature Relating to Refrigeration...1920 and 1921. p.50.

National association of stationary engineers. Lantern slide lecture of refrigeration. [Boston, 1917] 64p. L. C.

Includes, also, directions for borrowing and shipping the slides.

Neff, Peter. Practical use of thermometers in refrigerating plants. (In Power, v. 42, no. 12, Sept. 21, 1915, p.417-418) 290.8 P87

"Thermometers are not so generally used as is desirable."

Package sales corporation, South Bend, Ind. Decking plans for cold storage houses. [by J. E. Eldridge] South Bend, Ind., [1922] 23p. 295 E12

Includes tables, illustrations, and detail drawings showing how to construct decking for cold storage houses.

Power. Power's practical refrigeration, comp. by the editorial staff of Power. 1st ed. N. Y., Power, McGraw-Hill book co., inc., 1921. 283p. 295 P87

Compiled in response to requests "for a book dealing with the

practical side of refrigeration and still including the essential laws covering the production of refrigeration."

Refrigeration pointers. N.Y., Fower [1922] 53p. L.C.

"This booklet has been prepared with the idea of showing how the engineer may determine the tonnage output, condenser water and pressures, horsepower per ton and like items with the smallest amount of calculation": p.4.

Ritter, Arthur. Equipment for modern cold storage plants. (In Metal Worker, Plumber & Steam Fitter, v.87, no.2, Jan., 12, 1917, p.72). 291.8 M56

This "is from an article...which appeared in 'Sirocco Service'." - Text.

Ruddick, J. A., and Burgess, Joseph. Small cold storages and dairy buildings. Ottawa, 1923. 16p. (Canada. Dept. Agr. Bul. 16, n.s.) 7 C163

A reprint of bulletin no.49, Dairy and Cold Storage Branch, which superseded bulletin no.35.

Shipman, R. L. Maintenance of insulation for low temperatures. (In Power, v.42, no.4, July 27, 1915, p.118-119) 290.8 P87

"So-called breathing process of walls is due to changes in barometric pressure and temperature."

Siebel, J. E. Compend of mechanical refrigeration and engineering; a comprehensive digest of general engineering and thermodynamics for the practical use of ice manufacturers, cold storage men... and all other users of refrigeration in the various industries, also, students of refrigeration in connection with engineering. 9th ed. Chicago, Nickerson & Collins co., 1918. 571p. 295 Sil.

Part IV, Chapter III, Cold Storage (p.220-243), deals with construction of cold storage rooms, refrigeration required, other conditions required, and temperatures for storing butter, cheese, milk, eggs, etc. Parts VI and VII include also tables on piping and cold storage, and examples.

Spooner, W. D. Ammonia compression refrigerating system. A complete treatise of the ammonia compression system presented in a practical manner. Especially prepared for the operating engineer and the student, by W. S. Doan [pseud.] Chicago, Nickerson & Collins co. [1921] 223p. 295 Sp6

Springett, B. H. Cold storage and ice-making; an elementary handbook. London, E. N., Sir Isaac Pitman & sons, ltd., 1921. 122p.

"It is not proposed in the present work to deal with the design or construction of huge cold stores, erected under the supervision of a consulting engineer and operated by an experienced staff. The object... is to provide a general knowledge of the whole subject, to enable an ordinary user of refrigeration to know sufficient of rudimentary principles to avoid mistakes."

The cold store: p.85-94. Temperatures for cold storage (table): p.110.

Refrigerating capacity in storage room (table): p.113.

Starr, J. E. Practical refrigerating engineers' pocketbook; an elementary treatise, supplemented with numerous tables. Chicago, Nickerson & Collins co. [1922] 193p. 295 St2
Cold storage: p.66-68.

Taylor, G. T. Overhauling an ice plant. Bringing a rundown ice making and cold storage plant up to shipshape condition for the highest operating efficiency. (In Refrigerating World, v.57, no.3, Mar., 1922, p.11-13) 295.8 C67

An account of an actual overhauling job.

Taylor, G. T. Remodelling a refrigerating plant. Means adopted to increase capacity of a combination cold storage, ice making, dairy and ice cream making plant without enlarging building. (In Refrigerating World, v.58, no.4, Apr., 1923, p.19-20) 295.8 C67
No name of plant or place is given.

Toquet, F. E. Suggestion for standard cold storage. (In Rural New Yorker, v.79, no.4617, Dec. 18, 1920, p.1890) 6 R88

"The purpose of this article is to explain how good, economical and convenient storage may be established, so that such surplus produce [fruit and vegetables] may be saved at a tidy profit."

United cork companies, New York, comp. Cork and insulation, facts and figures. N. Y., 1917. 153p. L. C.

This booklet, which endeavors to show "how to make use of refrigeration in the most efficient and economic way, i.e., to keep the cold in and the heat out of rooms or buildings after the refrigeration has been turned on" is divided into two parts. Part 1 gives general information and part 2 gives construction data.

U. S. Navy department. Bureau of engineering. Instructions for the care and operation of refrigerating plants. Navy department, Bureau of engineering. (Rev. ed., 1921) Washington, Gov't. print. off., 1921. 78p. L. C.

Not seen.

Voorhees, G. T. The absorption refrigerating machine, advanced theory and practice: a complete technical treatise on absorption refrigerating systems containing not only the fundamental principles, but also detailed data for the design and construction of the absorption machine for all working conditions. Chicago, Nickerson & Collins co. [1924] 175p. L. C.

Voorhees, G. T. The absorption refrigerating machine, elementary theory and practice; a complete practical elementary treatise on the absorption system of refrigeration, and its general fundamental principles of operation. 2d ed., rev. and amplified. Chicago, Nickerson & Collins co. [1923] 163p. L. C.

Wallis-Tayler, A. J. Refrigeration, cold storage and ice-making; a practical treatise on the art and science of refrigeration with which is incorporated "Refrigeration and ice-making machinery" (4th ed.)... 6th ed., rev. London, Crosby Lockwood and son, 1920. 295 W15R

Refrigeration: Chapters XII-XV, p.270-395. Chapter XIII deals with the construction and arrangement of cold stores and of cold storage rooms, etc. Chapter XV deals with the proper methods of storing, and temperatures for the cold storage of various articles.

Williams, Hal. Mechanical refrigeration; being a practical introduction to the study of cold storage, ice-making and other purposes to which refrigeration is being applied... New and enl. ed. London, N.Y., Sir Isaac Pitman & sons, ltd., 1924. 50lp. 295 W67

Chapter XI, p.276-331 (Cold storage) deals with construction of buildings, small cold stores, methods of cooling, cold storage management, etc. Chapter XII, p.367-433 (Articles in cold storage) is a discussion of the preservation of commodities in cold storage.

Cold Storage Holdings - Reports Issued by
the U. S. Department of Agriculture.

Bell, J. O. The cold storage reports of the Bureau of Markets, United States Department of Agriculture. (In Amer. warehousemen's assoc. Proc., 27th, 1917, p.370-376) 297.9 Am32

Bell, J. O. Cold storage reports, season 1917-1918. Apples, butter, American cheese, eggs, and poultry. Washington, 1919. 44p. (U. S. Dept. Agr. Bul. 776)

"This bulletin is the second of a series of reviews of the storage reports of the Bureau of Markets... [and] reviews the season of 1917-1918."

Bell, J. O. Reports of storage holdings of certain food products during 1918. Washington, 1919. 80p. (U. S. Dept. Agr. Bul. 792)

"Reports data as to the storage holdings during 1918 of frozen and cured meats, lard, frozen fish, cured herring, and mild cured salmon."

Bell, J. O., and Franklin, I. C. Reports of storage holdings of certain products. Washington, 1918. 44p. (U. S. Dept. Agr. Bul. 709)

"Statistics are given showing the actual quantities of different commodities [apples, butter, American cheese, eggs, frozen and cured meats and lard, and fish] held in storage in 1916-1917, as reported from the warehouses, comparison being made with reports of other months and years."

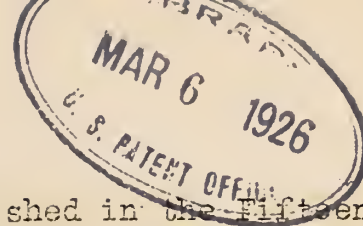
Moomaw, C. W., and Stewart, M. M. Apple market investigations, 1914-15. Washington, 1915. 22p. (U. S. Dept. Agr. Bul. 302)

Cold storage holdings and movement: p.14-16.

- U. S. Department of agriculture. Cold-storage holdings to October, 1924. Washington, 1925. 32p. (Statist. bul. 4) 1 Ag84St
"This bulletin is a revision of Statistical Bulletin No. 1, Cold-storage Holdings, issued August, 1923," which consisted of "compilations of the regular monthly reports made to the former Bureau of Markets and to the Bureau of Agricultural Economics." Commodities include apples, butter, cheese, eggs, poultry, meats, lard, and fish.
- U. S. Department of agriculture. Monthly cold storage reports for 1920 to date may be found in the following publications of the Department. The index to each volume gives the exact paging of each report:
The Market Reporter, v.1-4; 1920-1921.
Weather, Crops, and Markets, v.1-4; 1922-1923.
Crops and Markets. Monthly Supplement, v.1-date; 1924-date.
Other cold storage reports of the Department may be found in this list under Bell, J. O. (Department Bulletins 709, 776, 792) and under U. S. Department of Agriculture (Statistical Bulletins 1,4)
- U. S. Department of agriculture. Bureau of markets. Cold storage holdings... 1914-1920. Washington, 1914-1921. 99 numb. leaves. Mimeographed. 1.9 M345C
Contains: Holdings of apples, dairy and poultry products, lard, meat, fish, and squid.

Costs, Prices, Rates, and Revenues.

- Franklin, I. C. Cost system for cold storage warehouses. (In Ice and Refrigeration, v.59, Nov., 1920, p.207) 295.8 Ic2
"Presents report of work of specialists of the Bureau of Markets on a cost accounting system in one warehouse before the work was discontinued owing to the lack of appropriation to carry the work on." - Bibliography of American Literature Relating to Refrigeration... 1920 and 1921, p.63. Not seen.
- Holmes, G. K. Cold storage and prices. Washington, 1913. 116p. (U. S. Dept. Agr. Bur. Statis. Bul. 101)
"This is a statistical study of prices of commodities...[in the bulletin listed below] and supplementary to that work. There is in addition a special compilation of prices of butter and eggs in New York City. The purpose of the work was to observe fluctuations of prices before cold storage was of considerable account, in order to compare them with fluctuations in recent years during which the business has grown to large proportions." - Experiment Station Record, v.28, p.871.
- Holmes, G. K. Cold-storage business features. Reports of warehouses. Washington, 1913. 86p. (U. S. Dept. Agr. Bur. Statis. Bul. 93)
"Presents detailed results of an investigation of the business features of the cold storage of fresh beef, mutton, and pork, dressed poultry, butter, and eggs, as ascertained by the Bureau of Animal Industry and the Bureau of Statistics, in the autumn of 1911. Preliminary and



condensed results of this investigation were published in the Fifteenth Annual Report of the Secretary of Agriculture": p.3.

Lamoreaux, G. A. Cold storage costs and revenues. (In Ice and Refrigeration, v.67, no. 1, July, 1924, p.5-6) 295.8 Ic2

Figures were compiled from actual records of operations.

Neff, Peter. Cost of refrigeration. (In Amer. assoc. refrigeration, Proc., 5th, 1915, p.85-90) 295.9 Am3

"A basis for cold storage rates is seriously needed. Suggested method to start criticism and ascertain facts. Charts and tables."

Neff, Peter. Operating costs in cold storages. (In N. Y. State cold storage assoc. Third annual meeting [minutes]... Feb. 16, 1916; also in Ice and Refrigeration, v.50, no.3, March, 1916, p.168-171)

This paper, which is followed by a discussion, is accompanied by a Chart for Convenient Finding of Refrigerating Data, Reproduced after Tracing, by the author.

Swarthout, A. V. Accounting for cold storage warehouses. (In Ice and Refrigeration, v.56, no. 1, Jan., 1919, p.15-16; also in Amer. warehousemen's assoc. Proc., 1918, p.434-438) 295.8 Ic2 297.9 Am32

The author discusses the expenses which constitute the cost of maintaining cold storage warehouses and which must be taken into account in establishing storage rates.

U. S. Department of agriculture. Artificial refrigeration. (In Milk Dealer, v.5, no. 8, May, 1916, p.26,30) 44.8 M595

A "letter" in which is discussed the cost of artificial refrigeration as compared with that of ice. Summaries of costs for both kinds of plants are tabulated.

U. S. Food administration. Schedule of maximum cold storage rates, effective December 1, 1918... Cold storage warehouse licenses. [Washington?] 1918. 7p. 164.1 M452

"This pamphlet supersedes the pamphlet issued on September 1, 1918." - Title page.

Gives rates for apples and pears, butter and poultry, cheese, dried fruits, and meats.

Laws, Rules, and Regulations*

California. Laws, statutes, etc. Act to provide for the inspection of foreign cold storage meat sold or offered for sale within the state of California for the purposes of human consumption. (Ch. 688, Laws, 1921)

Not seen. Note is from Public Affairs Information Service, Bulletin, 1920, p.292.

*No attempt has been made to search the statutes of the various states for legislation relating to cold storage, but material brought to our attention has been included.

Foss, H. N. Cold storage laws in the United States. An analysis of representative statutes of the various States of the United States affecting the handling, storage, and sale of foods stored in cold-storage warehouses, together with the duties and obligations imposed upon warehousemen operating such warehouses, prepared in the United States Department of agriculture, Washington, D. C. 23p. (In International cong. of refrigeration, 4th, London, 1924. [Papers]) 295.9 In82

The laws of Illinois, Massachusetts, and New York are analyzed.

Haring, H. A. Cold storage regulation. (In Ice and Refrigeration, v.68, no.5, May, 1925, p.419-422; to be continued) 295.8 Ic2

The first of a "series of articles describing the growth of cold storage regulation in which the author presents a full tabulation of existing laws and shows what cold storage legislation has accomplished during twenty years."

Horne, F. A. Uniform and effective cold storage laws. (In Refrigerating World, v.49, no.5, May, 1915, p.35-38) 295.8 C67

"Paper read before the National Food Trades Conference in New York in April, 1915."

Legislation concerning ice and cold storage industries. (In Ice and Refrigeration, v.68, no.3, March, 1925, p.266-267) 295.8 Ic2

"Record of bills introduced into various legislatures pertaining to municipal ownership of both ice and cold storage plants."

Nebraska. Department of agriculture. Cold storage warehouses; rules and regulations governing the operation of cold storage and refrigerating warehouses, effective July 1, 1921. Lincoln, 1921. 8p. (Nebr. Dept. Agr. Regulatory announcements. C.I) 2 H27Rg

New Jersey. Laws, statutes, etc. Supplement to an act entitled "An act to regulate the cold storage of food and the sale or distribution of articles of food after cold storage." (Ch. 71, Laws 1921)

Prohibits altering or destroying labels on packages showing time food was placed in cold storage.

Not seen. Note is from Public Affairs Information Service, Bulletin, 1921, p.94.

Switzler, R. H. Modern cold storage regulations as they affect quality and preservation of foodstuffs. (In Engineers Club of St. Louis. Jour. v.6, Oct. 1921, p.185-205)

Read before the Associated engineering societies of St. Louis, Oct. 19, 1921.

Not seen. Note is from Public Affairs Information Service, Bulletin, 1922, p.71.

U. S. Congress. House. Committee on agriculture. Cold storage bill ... Report. [To accompany H. R. 9521] [Washington, Govt.print.off., 1919] 4p. (66th Cong. 1st sess. House. Report 337) 148 no.7593

U. S. Congress. House. Committee on agriculture. Cold-storage legislation. Hearings... on cold storage legislation; with index and appendix containing compilation of state laws relating to cold-storage, and report of the U. S. Food Administration for 1918. August 11-26, 1919. Parts 1-11 [in 1 v.] Washington, Govt.print.off., 1919. 909p. 295 Un32

Laws of the various states governing the cold storage of food products: p.450-486.

U. S. Congress. Senate. Committee on agriculture and forestry. Cold storage. Hearings... on H. R. 9521; a bill to prevent hoarding and deterioration of and deception with respect to cold-storage foods. Washington, Govt.print.off., 1920. 2 pts. 295 Un33

Virginia. Laws, statutes, etc. Act to amend and re-enact section 8 of an act entitled "An act defining cold storage and cold storage warehouses, and regulating the storage of articles of food, and providing penalties for the violation of the provisions of this act, and providing an appropriation for carrying out the requirements of the act," approved September 9, 1919, so as to regulate the sale of cold storage goods by public or private, or combined public and private, cold storage warehousemen, and wholesale and retail dealers, and operators of hotels, restaurants, and public eating places. (Ch. 63, Acts, 1923)

Not seen. Note is from Public Affairs Information Service, Bulletin, 1923, p.97.

Wisconsin. Laws, statutes, etc. Act to amend sections 1684W-4, 1684W-9 and 1684-10 of the statutes relating to cold storage. (Ch. 148, Laws, 1923)

Not seen. Note is from Public Affairs Information Service, Bulletin, 1924, p.97.

Warehouses. Descriptions of Individual Plants.

Anheuser-Busch New York plant. Increase in ice making capacity and cold storage space obtained by remodelling and modernizing plant and equipment.

(In Refrigerating World, v.57, no.7, July, 1922, p.13-15) 295.8 C67

"A detailed description of the remodelled plant."

Brooklyn-bridge freezer. (In Refrigerating World, v.56, no. 8, Aug. 1921, p.11-16) 295.8 C67

A description of the new plant of the Brooklyn Bridge Freezing and Cold Storage Company which "can take care of the freezing of 220,000 pounds of fish per day and has a storage capacity of 5,000,000 pounds of fish."

Central cold storage warehouse, Chicago. (In Ice and Refrigeration, v.53, no.4, Oct., 1917, p.121-126) 295.8 Ic2

A "general description of one of the most modern cold storage warehouses in the U. S., giving some details of the two-stage compression refrigerating machine and brine refrigerating system, insulation, power and fuel used, low temperature maintained, etc."

Cold-air refrigeration plant. (In Power, v. 42, no.20, Nov. 16, 1915, p. 674) 290.8 P87

"Description of a model packing house on the Pacific Coast in which refrigeration is accomplished by means of the circulation of cold air through air ducts."

The cold stores of the Valio butter export association of Finland. (In Ice and Cold Storage, v.25, no.288, March, 1922, p.53-54) 295.8 Ic22

A description of the Helsingfors cold store, begun in Oct., 1919.

The Commonwealth cold storage & ice plant. (In Ice and Refrigeration, v.48, no. 1, Jan., 1915, p.10-16) 295.8 Ic2

"Description with illustrations of one of the largest and most modern ice manufacturing and cold storage plants in existence. Extent of the fish industry of Boston. Construction of buildings and details of equipment. Convenient arrangements."

Crow, Carl. The farmers' own cold storage. Their meats and produce are held in safety deposit ice boxes at small cost. (In Country Gentleman, v.82, no.43, Oct. 27, 1917, p.1627) 6 C833

An account of a cold storage plant at Chico, California.

Description of Fulton market cold storage company's modern plant [Chicago] (In Refrigeration, v.29, no. 3, Oct., 1921, p.28-30) 295.8 Ic23

Reprinted from "Power."

Goree, C. P. Performance of a modern ice plant. Description of 100-ton ice-making plant of the Diamond ice and coal company, Charleston, W. Va., with complete operating results for June, 1921. (In Refrigerating World, v.59, no.5, May, 1924, p.16-20) 295.8 C67

The Gravesend and district ice and cold storage company, Ltd. (In Ice and Cold Storage, v.27, no.319, Oct., 1924, p.261-263) 295.8 Ic22

A description, with illustrations, of a plant recently installed.

A great cold storage warehouse. (In Ice and Refrigeration, v.49, no.5, Nov. 1915, p.248-249) 295.8 Ic2

"Description with illustrations of the terminal warehouse of the Cold Storage and Warehouse Co., of Chicago, Illinois."

Hawkins, L. A. United States Department of agriculture cold storage plant for experimental work with fruits and vegetables at Arlington Farm, Va. (In Ice and Refrigeration, v.58, no.4, Apr., 1920, p.179-181)

An article by this author, of a very similar title, was published in Better Fruit, v. 14, no. 10, Apr., 1920, p.10,36.

Italy's largest cold store. A description of the Parma installation. (In Cold Storage and Produce Review, v.27, no.312, Mar. 20, 1924, p.89-90, 93) 295.8 C672

Large apple storage warehouse. (In Ice and Refrigeration, v.54, no.3, March, 1918, p.154-156) 295 Ic2

"Description of a plant owned by the Winchester Cold Storage Co. of Winchester, Va. Dimensions - 120 x 200 feet, 5 stories high. Construction, elevating system, insulation, refrigeration."

Mine refrigeration. Description of air-cooling plant installed at the Morro Velho mine, Brazil - to supply air at a fairly steady temperature. (In Refrigerating World, v.58, no.2, Feb., 1923, p.23-25) 295.8 C67

"The plant is similar in principle to an ordinary cold storage installation with a brine-circulation system. In this case, however, the temperatures do not fall below 32° F., ordinary water is used instead of brine, and the place of the cold storage chamber is taken by two large air coolers."

Mitchell, Terry. Creamery and ice making plant; illustrated description of the new combination plant of the Crescent creamery company at Los Angeles, Calif. (In Refrigerating World, v.59, no.2, Feb., 1925, p.11-13) 295.8 C67

A model cold storage plant exhibited at the exposition. (In Ice, v.16, no.6, July, 1915, p.13-14) 295.8 Ic23

"Being a description of the exhibit of the Armstrong Cork Co., at the Panama-Pacific Exposition at San Francisco."

Modern cold storage plant. (In Refrigerating World, v.55, no. 1, Jan., 1920, p.11-12) 295.8 C67

Description, with illustrations, of the "electrically driven cold storage plant erected and operated by the Seattle Port Commission, Seattle, Washington."

Modern large cold storage warehouse. (In Ice and Refrigeration, v.56, no. 5, May, 1919, p.297-312) 295.8 Ic2

Details of construction and equipment of the Merchants Refrigerating Company's large cold storage plant erected during the war in New York City.

Moussu. Du fonctionnement de l'usine de Lyndiane (Sénégal) (In Académie d'Agriculture de France. Comptes Rendus des Séances, v.4, no.12, Mar. 27, 1918, p.394-400) 14 P215Bc

"The author reviews a study by M. J. Derré who is in charge of the sanitary inspection of the [cold storage] plant of Lyndiane in West Africa. The installation of the Lyndiane plant in Senegal has made possible the exploitation of one of the principal natural resources, hitherto unused but sure to prove of increasing importance as a result of the abundant livestock and immense pasture lands." - International Review of the Science and Practice of Agr. v.9, no.6, June, 1918, p.765.

A new and modern cold storage warehouse. (In Ice and Refrigeration, v.64, no.3, Mar., 1923, p.191-196) 295.8 Ic2

A description of the new plant of the Kansas City Cold Storage and Warehouse Company, with illustrations and plans.

New cold storage warehouse for Texarkana. (In Refrigerating World, v.57, no.5, May, 1922, p.21) 295.8 C67

A short description of a plant to be built by the Southern Ice and Utilities Company at Texarkana, Arkansas.

New plant of Amicon fruit co., Williamson, W. Va. (In Ice and Refrigeration, v.68, no.2, Feb., 1925, p.138-141) 295.8 Ic2

A description of this new and modern fruit and produce warehouse giving layout of cold storage rooms, description of refrigerating equipment, and method of insulation.

New warehouse with refrigerated space for furs and rugs. (In Ice and Refrigeration, v.68, no.4, Apr., 1925, p.339-341) 295.8 Ic2

Description of the new fireproof storage warehouse of the Eldredge Chelsea Fireproof Warehouse Company, in the Chelsea section of Atlantic City, N. J. Plans.

Peterborough's [England] new ice factory. Details of machinery, ice store and cold store. (In Ice and Cold Storage, v.27, no.315, June, 1924, p.149-150) 295.8 Ic22

Illustrated.

Power and refrigeration for model ice cream and dairy plant. (In Refrigeration, v.26, no.4, May, 1920, p.26-29) 295.8 Ic23

Reprinted from "Power."

Description of the French Bros. Bauer Company's large ice cream and dairy plant in Cincinnati, Ohio.

The railway cold stores at Lyon-Perrache. A French agricultural cold store to encourage local production. (In Ice and Cold Storage, v.27, no.310, Jan., 1924, p.11-13) 295.8 Ic22

This article was adapted from an illustrated description of the new cold stores erected at Lyon-Perrache, "in the last issue of La Revue Générale du Froid."

Reconstruction of an ice and cold storage plant. (In Ice and Refrigeration, v.61, no.2, Aug., 1921, p.91-93) 295.8 Ic2

"A descriptive article of the reconstruction of the plant of the Sherman Ice Company, Sherman, Texas, with diagrammatical plans and exterior and interior views."

Refrigerating service in the milk bottling industry. Useful calculations from American practice. (In Cold Storage and Produce Review, v.27, no.319, Oct., 1924, p.428-430) 295.8 C672

"A description of an American milk bottling plant together with various data used in connection with the working of the plant."

Refrigeration in the packing house industry. (In Refrigerating World, v.54, no. 1, Jan., 1919, p.14-16) 295.8 C67

Description of the recently altered Hamilton, Canada, plant of Armour and Company.

St. Pierre fish freezer. (In Refrigerating World, v.56, no. 1, Jan., 1921, p.11-16) 295.8 C67

A description of the fish freezing and storing plant built for the French Government and completed in December, 1920.

Smith, S. T. A modern ice making, cold, dry, and ice storage building. (In Amer. Architect and the Architectural Review, v.125, no.2443, Apr. 9, 1924, p.341-346) 296.8 Am32

A description, with plans, of the Terminal Refrigerating and Warehousing Company, Washington, D. C.

Stringher, Vittorio. I recenti istituti sperimentali in Italia. (In Florence. Reale Accademia Economico-Agraria dei Georgofili di Firenze. Atti. ser. 5, v.18, no.2, Oct.15, 1921, p.64-82) 507 F51

Together with the other buildings, the experiment station for cold storage investigations at Milan is briefly described.

A visit to an ice plant. (In Ice and Refrigeration, v.56, no. 6, June, 1919, p.372-375) 295.8 Ic2

A description of a giant refrigerator at Gievres near Romorantin in the department of Loir-et-cher, an ice plant which "can supply for 10 days an army of two and one-half million soldiers."

Washington storage plant. New warehouse and raw water ice plant of the terminal refrigerating and warehousing company in the Capitol city. (In Refrigerating World, v.59, no. 1, Feb., 1924, p.13-18) 295.8 C67

A description of the plant with plans and illustrations.

Winters, S. R. Refrigeration for research work. (In Ice and Refrigeration, v.67, no. 1, July, 1924, p.14-15) 295.8 Ic2

"Description of the experimental refrigerating plant at the Bureau of Animal Industry of the United States Department of Agriculture, Washington, D. C."

World's biggest freezer. (In Refrigerating World, v.55, no. 5, May, 1920, p.22-23) 295.8 C67

A short description, with a plan of the layout of Carbondale absorption system of refrigeration, of the Chicago plant of Armour and Company which "has been erected for the dual service of freezing meat products... and storing products during the period of heavy production."

Commodities

Butter and Milk

Bowen, J. T. The application of refrigeration to the handling of milk. Washington, 1914. 88p. (U. S. Dept. Agr. Bul. 98)

"An attempt has been made to discuss briefly the various applications of refrigeration, both when employing ice and refrigerating machinery, in the operation of the modern milk plant, creamery, or dairy, and to discuss in each instance the methods most commonly used in the latest and best equipped plants."

Chicago mercantile exchange. Cold storage. The key to the problem of maintaining a wholesome food supply for the nation the year around - its part in the butter and egg industry. Chicago, 1923. 22p. Fam. Coll.

Clark, M. H. Butter prices, from producer to consumer. Washington, 1915. 59p. (U. S. Bur. Labor Statistics. Bul. 184) 158.6 B87

Seasonal variation in production and effect of cold storage: p.22-23. Prices are given for 1910 and 1911.

Dyer, D. C. Progressive oxidation of cold-storage butter. (In U. S. Dept. Agr. Jour. Agr. Research, v.6, no.24, Sept. 11, 1916, p.927-952)

"The attempt was made to determine whether the undesirable flavors of storage butter arise from a decomposition occurring in the fat itself or in some one or more of the other components entering into the composition of the whole product." - Experiment Station Record, v.35, p.875.

Gamble, J. A., and Bowen, J. T. Cooling milk and storing and shipping it at low temperatures. Washington, 1919. 28p. (U. S. Dept. Agr. Bul. 744)

"The experimental work in this bulletin covers (1) the relative efficiency of cooling tanks of different construction handled under varying conditions; (2) the most efficient methods of cooling and storing milk on the farm; and (3) the transportation of milk at low temperatures to market."

Gray, C. E. Investigations in the manufacture and storage of butter. I - the keeping qualities of butter made under different conditions and stored at different temperatures... with remarks on the scoring of the butter, by G. L. McKay. Washington, 1906. 24p. (U. S. Dept. Agr. Bur. Animal Industry. Bul. 84)

Reports the results of work carried on during 1905-06.

Grimes, Michael. A study of the action of certain bacteria, yeasts and molds on the keeping quality of butter in cold storage. (In Jour. Dairy Science, v.6, no.5, Sept., 1923, p.427-445) 44.8 J822

"A summary of the work carried out in partial fulfillment of the requirements for the Degree of Doctor of Philosophy, Iowa State College." Bibliography: p.445.

Also issued as a "reprint". Copy in the Library of Congress.

Guthrie, E. S. The book of butter. A text on the nature, manufacture and marketing of the product. N. Y., Macmillan co., 1918. 270p. (Rural text-book series) 44 G982

Storage of butter: p.181-182. Includes temperatures, nature of buildings and business, cost, home storage, and effect of storage on price.

Guthrie, E. S. Butter shrinkage. (In Jour. Dairy Science, v.1, no.2, July, 1917, p.136-138) 44.8 J822

"Tabulated data are presented showing the decrease or increase in each of 100 tubs of butter after storage for 134 days at from 0 to -10°F. The butter was made at the Cornell University creamery from eight different churnings from sweet, pasteurized cream." - Experiment Station Record, v.33, p.77.

Hunziker, O. F., and others. The pasteurization of sour, farm-skimmed cream for butter making. Lafayette, 1917. 76p. (Ind. Agr. Exp. Sta. Bul. 208)

"The experiments here reported were undertaken to determine...

(3) the effect of pasteurization on the chemical properties of fresh and stored butter; (4) the causes underlying the changes in the flavor of raw and pasteurized cream butter in storage." - Experiment Station Record, v.33, p.880.

Kildee, H. H. Cold storage of butter. University Farm, St. Paul. (In Minn. Agr. Exp. Sta. Report. 1917, p.48,49)

"A study was made of the influence of salt on the changes taking place in storage butter." - Experiment Station Record, v.39, p.384.

Potts, R. C., and Meyer, H. F. Marketing creamery butter. Washington, 1917. 37p. (U. S. Dept. Agr. Bul. 456)

Cold storage methods and facilities: p.28-30. This section includes: Reports of holdings in storage. The rates for storage of butter, Financing of storage operations, and Margins of storage butter.

Rogers, L. A., and others. Factors influencing the change in flavor in storage butter. Washington, 1913. 69p. (U. S. Dept. Agr. Bur. Animal Industry. Bul. 162)

"This bulletin reports a study of some of the factors which affect the flavor of storage butter. There is also a brief review of previous work on this topic."

Rogers, L. A., Thompson, S. C., and Keithley, J. F. The manufacture of butter for storage. Washington, 1912. 27p. (U. S. Dept. Agr. Bur. Animal Industry. Bul. 148)

"Describes the results of three seasons' storage of butter made and packed for the United States Navy under the supervision of the bureau and two seasons' work with other butter manufactured under commercial conditions, so as to test thoroughly the effect of storage at various temperatures upon the quality of butter made by different methods."

The Proceedings of the 20th annual meeting, 1910, of the American Warehousemen's Association, p.223-230, contain an article (by L. A. Rogers) with the same title as this bulletin.

Storing butter. (In Wallace's Farmer, v.44, no.32, Aug. 3, 1919, p.1539)

6 W15

Illustrated by a chart which shows "the months in which butter goes into storage and the months in which butter is taken out of storage."

Taylor, G. T. Dairy refrigeration troubles. (In Refrigerating World, v.57, no. 1, Jan., 1922, p.11-14) 295.2 C67

"Reasons why equipment in a large dairy failed to supply the needed refrigeration - remedies found and full capacity secured."

Thatcher, R. W., and Dahlberg, A. C. Enzymes of milk and butter. (In U. S. Dept. Agr. Jour. Agr. Research, v 11, no. 9, Nov. 26, 1917, p.437-450)

"At the Minnesota Experiment Station several lots of butter were prepared under carefully controlled conditions of manufacture, and held in cold storage in order to study the effects of varying methods of manufacture and storage upon the keeping qualities of the butter. A study of the enzym content of the butter after storage is here reported."

Torre, C. D. Variazioni nel contenuto microbico del burro nella conservazione col freddo. (In Istituto Sperimentale di Caseificio in Lodi. Annali, v.1, fasc.5-6, Dec., 1922, p.169-198) 44.9 L82A

"Bacteriological determinations of samples of butter stored for different periods in refrigerators indicate that during the first part of the storage period the plate counts gradually increase to a high point at from 3 to 14 days, followed by gradual decreases to the end of the storage period." - Experiment Station Record, v.49, p.176.

Washburn, R. M., and Dahlberg, A. C. The influence of salt on the changes taking place in storage butter. (In Jour. Dairy Science, v.1, no.2, July, 1917, p.114-126)

"A report of studies of salted and unsalted butter held for the usual cold-storage period in a commercial cold-storage butter room, and then for a short time at the usual ice-box temperature in order to give it the treatment usually received by stored butter before being consumed." - Experiment Station Record, v.38, p.77.

Williams, J. B. Refrigeration for milk bottling plant. (In Ice and Refrigeration, v.67, no.2, Aug. 1924, p.100-102; v.67, no.3, Sept. 1924, p.171-175) 295.8 Ic2

Discusses properties of milk; cooling on the farm; bottling process; etc. Includes a diagrammatic representation of the work of the refrigerating plant and the necessary refrigerating duty.

Cheese

Babcock, S. M., and others. The cold curing of cheese. Washington, 1903. 88p. (U. S. Dept. Agr. Bur. Animal Industry. Bul. 49)

"Report upon experiments conducted...in cooperation with the Wisconsin Agricultural Experiment Station and the New York [State] Agricultural Experiment Station."

Doane, D. F. Investigations in the manufacture and curing of cheese. VI. - The cold curing of American cheese. Washington, 1906. 68p. (U. S. Dept. Agr. Bur. Animal Industry. Bul. 85)

"Treats of the effect of different low temperatures of storage, and the time of putting into storage, on the curing of American or Cheddar cheese and includes a digest of all previous work on this subject."

Ellenberger, H. B. Cold storage of cottage and other soft curd cheeses. Burlington, 1919. 22p. (Vt. Agr. Exp. Sta. Bul. 213)

"This bulletin reports preliminary cold-storage trials with soft-curd cheeses made in 1917... and more elaborate trials in 1918 planned as a study of the influence of manufacturing methods, chemical composition, and similar factors on the flavor, texture, and marketability of the stored product."

An account of the uncompleted experiments is to be found in the Milk Dealer, v.7, no.12, Sept., 1918, p.58,59.

Lane, C. B. The cold storage of cheese. (Experiments of 1903-4) Washington, 1906. 26p. (U. S. Dept. Agr. Bur. Animal Industry. Bul. 83)

"The investigations were undertaken to study on a commercial scale and under commercial conditions the influence which different temperatures exert (1) upon the weight of the cheese, (2) upon the quality of the cheese, and (3) the influence of such temperatures in combination with coating the cheese with paraffin."

Wright, Walter. Refrigeration and Cheddar cheese. Curing, storage and transport. (In New Zealand. Dept. Agr., Industries and Commerce. Jour. Agr. v.29, no.6, Dec., 1924, p.394-402) 23 N48J

A paper read at the International Congress of Refrigeration, London, 1924. Includes a plan of the first three floors of the cheese-store of the Auckland Farmers' Freezing Company.

Fish

Almy, L. H., and Field, E. The preservation of fish frozen in chilled brine. (In Jour. Industrial and Engineering Chemistry, v.13, no.10, Oct., 1921, p.927-930; v.14, no.3, Mar., 1922, p.203-206) 381 J825

This article is in two parts. Part I deals with The Penetration of Salt; part II, with The Keeping Quality of the Fish.

Clark, E. D., and Almy, L. H. Chemical study of frozen fish in storage for short and long periods. (In Jour. Industrial and Engineering Chemistry, v.12, no.7, July, 1920, p.656-663) 381 J825

An account of investigations "undertaken in the hope of furnishing exact information upon which the public could base its opinion concerning the wholesomeness of frozen fish as food. The part of these investigations of practical interest to the trade has already been published in Department Bulletin 635 of the U. S. Department of Agriculture, and entitled 'The Commercial Freezing and Storing of Fish'." - Text.

Clark, E. D., Almy, L. H., and Pennington, M. E. The commercial freezing and storing of fish. Washington, 1918. 9p. (U. S. Dept. Agr. Bul. 635; reprinted in Refrigerating World, v.53, no.6, June, 1918, p.13-16; an extract from this bulletin was printed in Ice and Refrigeration, v.55, no.5, Nov., 1918, p.189-190 with title Food Value of Frozen Fish) 295.8 C67 295.8 Ic2

Cold storage of fish (packing, reglazing, and period of storage): p.5-7.

- Hopkinson, L. T. Trade in fresh and frozen fishery products and related marketing considerations in Chicago, Ill. Washington, 1921. 21p. (U. S. Bur. Fisheries. Economic Circ.54) 157.5 Ec7
"Contains the results of the third of a series of surveys of certain primary markets intended for the use of the trade in increasing the consumption of fish and as a guide for educational work": p.1.
Cold storage: p.5-6. (Includes a table showing "the number of pounds of fish in storage in Chicago at the beginning of each month, received during each month, withdrawn during each month, and in storage at the end of each month for the year ended July 31, 1921")
- Hornell, James. The fisheries of Norway and Denmark; notes gleaned during a visit in 1920. Madras, 1921. 56p. (Madras Fisheries Bul. v.XIV, Report no.4 (1921)) L.C.
Brine freezing, Scandinavian and British methods: p.41-56.
- Plank, R., Ehrenbaum, E., and Reuter, K. Die konservierung von fischen durch das gefrierverfahren. 1916. 248p. (Zentral-einkaufsgesellschaft m.b.H. Abhandlungen zur Volksernahrung, hft. 5) 389 Z4
The conservation of fish by freezing. - Translated title.
"This publication is divided into two parts, a comparative investigation of different procedures of freezing, and histological and taste changes in frozen fish." - Experiment Station Record, v.36, p.509.
- Prince, E. E. Hints on frozen fish... Pub. by the authority of the Subcommittee of the Privy council for scientific and industrial research. Ottawa, 1918. 4p. (Canada. Honorary Advisory Council for Scientific and Industrial Research. Bul. 4) L. C.
A brief treatment of the subject.
This bulletin is bound with the author's How to Handle Frozen Fish, Bul. 3.
- Stiles, Walter. The preservation of food by freezing with special reference to fish and meat: A study in general physiology. London, 1922. 186p. (Gt. Brit. Food Investigation Bd. Special Report 7) 389.9 G792
"Throughout the report the advantages are emphasized of freezing over chilling as a means of preservation in cold storage of such materials as meat, fish, and poultry, and of the possibility of extending this process to other materials." - Experiment Station Record, v.49,p.559.
- Taylor, H. F. Brine freezing of fish. Washington, 1921. 8p. (U. S. Bur. Fisheries. Economic Circ.53) 157.5 Ec7
The author writes on p.1: "Most thoughtful people who are interested in refrigeration of fish are now of opinion that the time has come when the emphasis, attention, and effort may profitably be shifted from refrigerating machinery... to better methods of getting fish frozen and holding them in that condition until required for use. That is to say, we may shift our interest for the time from the production of cold to the application of the cold to the preservation of fish... The present article is an attempt to give some account of the present status of brine freezing as applied to fish."

U. S. Bureau of fisheries. The freezing and cold storage of fish. The problem solved. Washington [1917?] 5 numbered leaves. Mimeographed. (Its Mem. S-61) 157.51 F87

"An extract from an article with the above title in The Fish Trades Gazette, London, vol. XXXV, no. 1,796, for October 20, 1917, pp.39-43."

A description of the Ottesen method of freezing fish.

U. S. Bureau of fisheries. Frozen fish. Dry freezing. Brine freezing. Washington [1919?] 4 numbered leaves. Mimeographed. (Its Mem.S-76) 157.51 F93

"Extracts from an article by Prof. J. Stanley Gardiner... and Prof. H. F. Nuttall... which appeared under the above title in The Fish Trades Gazette."

"In considering the subject of freezing we desired to ascertain (1) whether from a health standpoint there were likely to be any dangers in the stored fish, and, if found, how to meet them, and (2) how best the trade objections to frozen fish could be eliminated." - Text.

U. S. Bureau of fisheries. The preservation and cold storage of fish. Washington [1919?] 4 numbered leaves. Mimeographed. (Its Mem.S-88) 157.51 P92

"From 'The Fish Trades Gazette and Poultry, Game and Rabbit Trades Chronicle' March 30, 1918, London. Page 17."

Discusses the preservation for distribution as fresh fish, the Barclay-Larsen system, the Henderson process, and the Ottesen process.

Verrière et Tayon. Le frigorifique a poissons de Lorient (Morbihan) (In Le Génie Civil, v.77, no.1989, Sept. 25, 1920, p.245-250) 290.8 G29

A description of the refrigeration of fish at Lorient giving plans of the plant; details of construction, machinery and apparatus; management; etc.

Fruit

Back, E. A., and Pemberton, C. E. Effect of cold-storage temperatures upon the Mediterranean fruit fly. (In U. S. Dept. Agr. Jour. Agr. Research, v.5, no.15, Jan. 10, 1916, p.657-666)

The results of experiments conducted during 1913-1915 are tabulated. Further investigations are reported on in Effect of Cold Storage Temperatures Upon the Pupae of the Mediterranean Fruit Fly by the same authors.

Back, E. A., and Pemberton, C. E. Effect of cold storage temperatures upon the pupae of the Mediterranean fruit fly. (In U. S. Dept. Agr. Jour. Agr. Research, v.6, no.7, May 15, 1916, p.251-260)

"The work [in these investigations] was carried on in connection with that relating to the effect of cold upon the eggs and larval instars" reported on in a previous paper.

Bigelow, W. D., and Gore, H. C. Studies on peaches. Washington, 1905. 32p. (U. S. Dept. Agr. Bur. Chemistry. Bul. 97)

Effect of storage on the composition of peaches: p.22-32. Results

of the experiments on peaches before and after common storage, cold storage, and refrigerator storage, are tabulated.

Bigelow, W. D., Gore, H. C., and Howard, B. J. . Studies on apples. Washington, 1905. 100p. (U. S. Dept. Agr. Bur. Chemistry. Bul.94)
Pt.I, Storage, respiration, and growth: p.9-67.. The results of the ripening and the respiration of apples in common and cold storage are summarized in charts and tables.

Bird, H. S. Important factors in the successful cold storage of apples. (In Mont. State horticultural society. Proc. 19th, 1916, p.34-36)
81 M762

"A brief discussion of the factors essential to the successful cold storage of apples, including some experimental data illustrating the damage by scald and decay due to storing immature fruit, over-mature fruit, and to delay in storage after picking the fruit." - Experiment Station Record, v.37, p.833.

Brooks, Charles, and Cooley, J. S. . Temperature relations of stone fruit fungi. (In U. S. Dept. Agr. Jour. Agr. Research, v.22, no.9, Nov. 1921, p.451-465)

"The results are given of investigations of the temperature response of the Monilia form of Sclerotinia cinerea and of Rhizopus nigricans, two fungi which cause heavy market losses of peaches and other stone fruits... The results of this investigation are believed to be of value as showing that low temperatures control peach rots and the importance of securing these temperatures promptly." - Experiment Station Record, v.47, p.151-153.

Brooks, Charles, Cooley, J. S., and Fisher, D. F. . Diseases of apples in storage. Washington, 1920. 24p. (U. S. Dept. Agr. Farmers' bul.1160)

"The authors describe the various diseases which are liable to occur on apples in storage and suggest methods for their control." - Experiment Station Record, v.44, p.247.

Brooks, Charles, Cooley, J. S., and Fisher, D. F. . Nature and control of apple-scald. (In U. S. Dept. Agr. Jour. Agr. Research, v.18, no.4, Nov. 15, 1919, p.211-240)

"The foregoing experiments show that the occurrence of apple-scald is determined by orchard, packing house, transportation, and storage condition... The amount of scald developed in cold storage plants has varied greatly with the location in the room": p.239.

Brown, B. S. Modern fruit marketing. A complete treatise covering harvesting, packing, storing, transporting, and selling of fruit. N. Y., Orange Judd co., 1913. 283p. 93 B81F

Fruit storage: p.85-118. The effects of storage on fruit: p.119-133.

Carter, W. F., jr. Apple storage. (In Ice and Refrigeration, v.54, no.2, Feb. 1918, p.73-74) 295.8 Ic2

"Immediate delivery to cold storage is important. Equipment; reinforced concrete structure most satisfactory; brine system of cooling." - U. S. Dept. Agr. Library. Bibliographical Contributions, no. 4, p.2.

Clark, V. A. Cold storage on the farm. Mechanical cold storage for fruit. Keeping qualities of apples. Washington, 1900. (In U. S. Dept. Agr. Farmers' Bul. 119, p.9-10)

"Suggestions for cold storage on the farm. Behavior of different fruits and vegetables in a mechanical cold store. Relative keeping qualities of 23 varieties of apples." - U. S. Dept. Agr. Library. Bibliographical Contributions, no.4, p.2.

Cold storage for apples. (In Ice and Refrigeration, v.48, no.5, May, 1915, p.283-289) 295.8 Ic2

"Description with illustrations of a typical small cold storage warehouse [Olcott, N.Y.] for apples located near the apple orchard. Size of rooms, and temperatures maintained."

Cruess, W. V., Overholser, E. L., and Bjarnason, S. A. Storage of perishable fruits at freezing temperatures, preliminary report. Berkeley, 1920. 43p. (Calif. Agr. Exp. Sta. Bul. 324)

"In this publication the authors review briefly previous work of Fulton and of Darrow in regard to methods of preserving small fruits in cold storage and present the results of experiments." - Experiment Station Record, v.44, p.207.

Cummings, M. B., and Lombard, P. M. Farm apple storage. Burlington, 1915, p.97-136. (Vt. Agr. Exp. Sta. Bul. 186)

"The authors give a short account of apple storage practice in Vermont and briefly review previous investigations dealing with the cold storage of apples." - Experiment Station Record, v.33, p.340.

Darrow, G. M. Strawberry culture. Washington, 1919. (U. S. Dept. Agr. Farmers' buls. 1026, 1027, 1028)

These three bulletins, which cover the South Atlantic and Gulf Coast regions, Western United States, and Eastern United States, respectively, contain "in addition to complete directions for growing, harvesting, and marketing strawberries, methods of using the surplus in canning, preserving, and by means of cold storage for future use." The information on cold storage is identical in the three bulletins.

Douane, M. Utilisation des procédés frigorifiques pour la conservation, le magasinage et le transport des fruits. (In France. Office de Renseignements Agricoles. Bul. v.16, April-June, 1917, p.229-251) 14 P218

Utilization of refrigeration processes for the conservation, storage, and transportation of fruits. - Translated title.

"A report to the French Commission containing suggestions for the organization and development of the fruit industry." - U. S. Dept. Agr. Library. Bibliographical Contributions, no.4, p.3.

Esam, G. Fruit cool storage: Experiments with apples and pears. (In New Zealand. Dept. Agr., Industries and Commerce. Jour. Agr. v.20, no.1, Jan. 20, 1920, p.10-18)

"The results are given of experiments conducted under the direction of the New Zealand Department of Agriculture at Hawke's Bay in 1919 to determine the effects of different methods of picking, handling, and packing apples and pears on the cold storage of fruit." - Experiment Station Record, v.43, p.39.

Esbjerg, Niels, and Holten, Erik. Forsøg med opbevaring af frugt. (In Tidsskrift for Planteavl, v.29, no.3, 1923, p.329-394. 11 T439)

Experiments in storing fruit. - Translated title.

"Investigations begun in 1918 upon various factors concerned in the keeping of fruit led to the general conclusion that apples and pears will keep much longer in artificial than in natural storage provided the fruit is stored promptly after harvesting... The paper is accompanied by a brief English summary." - Experiment Station Record, v.51, p.345)

Litteraturfortegnelse: p.391-392.

Fulton, S. E. The cold storage of small fruits. Washington. 1907. 28p. (U. S. Dept. Agr. Bur. Plant Industry, Bul. 108)

"Results of investigations covering three years, relative to the factors including soil, climate, harvesting, packages, storage temperatures and varieties which affect the keeping of small fruits in cold storage." - U. S. Dept. Agr. Library. Bibliographical Contributions, no. 4, p.4.

Gould, H. P. Peach growing. N. Y., Macmillan co., 1918. 426p. 93 G73
Cold storage: p.409-410. (Two paragraphs)

Gt. Brit. Food investigation board. Report... 1920. London, H. M. Stationery office, 1921. 39p. 389.9 G792R

[Report of the] fruit and vegetable committee: p.16-25.

Report of storage studies of apples, strawberries, raspberries, currants, and gooseberries.

Greene, Laurens. Apple storage problems. (In Ind. horticultural soc. Trans. 1915, p.72-96. 81 In2)

"A paper on the author's work in Iowa. Influence of moisture, freezing, maturity, color and size. Discussion." - U. S. Dept. Agr. Library. Bibliographical Contributions, no.4, p.4.

Gurney, W. B. Cold storage as a control of fruit fly. (In Agr. Gazette of New South Wales, v.34, no.7, July 1, 1923, p.528; abstract in International Review of the Science and Practice of Agr., n.s. v.2, no.1, 1924, p.236). 23 N472 241 In82

"Cold storage experiments with fruits infested with fruit fly are said to indicate clearly that after 20 days' storage at 34°F. the fruit is in good condition and finds a ready sale. In 10 small lots of fruit, including oranges, apples, peaches, nectarines, and pears, thus treated,

apparently all larvae were killed." - Experiment Station Record, v.51, p.661.

Hansen, H. F. A successful cold storage for apples. (In Minn. Horticulturist, v.44, no.6, June, 1916, p.243-244) 81 M66

"Directions are given for building a cold storage plant suitable for storing apples on the farm." - Experiment Station Record, v.35, p.447.

Lewis, C. I., Magness, J. R., and Cate, C. C. Preliminary report of pear harvesting and storage investigations in Rogue River Valley. Corvallis, 1918. 20p. (Oreg. Agr. Exp. Sta. Bul. 154)

Fruit was stored under six different conditions: common dry or ventilated storage; common humid storage; car temperature storage; cold dry storage; delayed storage; and cold humid storage.

Lewis, C. I., Murneek, A. E., and Cate, C. C. Pear harvesting and storage investigations in Rogue River Valley (Second report). Corvallis, 1919. 39p. (Oreg. Agr. Exp. Sta. Bul. 162)

"This bulletin is a second or progress report containing some of the more important results obtained during the season of 1918": p.5. The first report was issued as Oregon Experiment Station Bulletin 154, by Lewis, Magness, and Cate, listed above.

Lind, Gustav. Några förvaringsförsök med äpplen 1922-1923. (In Sweden. Kungl. Landtbruks-Akademiens. Handlingar och Tidskrift, v.62, no.5, 1923, p.429-434) 104 Sw3

"This is a report upon the relative keeping quality of several varieties of apples held in natural and artificial storage." - Experiment Station Record, v.50, p.238.

Lloyd, J. W. Some economic aspects of fruit and vegetable storage. Urbana, 1919. 8p. (Ill. Agr. Exp. Sta. Circ. 237)

In his summary the author states that "The most important storage problems for Illinois involve questions of economics rather than questions of refrigeration."

McAlpine, D. Bitter pit investigation. The experimental results in their relation to bitter pit and a general summary of the investigation... fourth report, 1914-1915. Melbourne, A. J. Mullett, government printer [1916?] 464.06 M11B

Cold storage experiments: p.72.

Magness, J. R. The handling, shipping, and cold storage of Bartlett pears in the Pacific coast states. Washington, 1922. 16p. (U. S. Dept. Agr. Bul. 1072)

The cold storage of Bartlett pears (Storage temperature, Pear scald): p.13-16.

Magness, J. R. Investigations in the ripening and storage of Bartlett pears. (In U. S. Dept. Agr. Jour. Agr. Research, v.19, no.10, Aug. 16, 1920, p.473-500)

"Gives the results of a portion of the work carried on under the project 'Factors Affecting the Storage Life of Fruit.'" - Footnote, p.473.

Magness, J. R., and Diehl, H. C. Physiological studies on apples in storage. (In U. S. Dept. Agr. Jour. Agr. Research, v.27, no. 1, Jan. 5, 1924, p.1-38)

"A report upon studies of the changes occurring in apples as they approach maturity on the tree and during the storage period subsequent to harvesting." - Experiment Station Record, v.51, p.41.

Mann, C. W. The handling and storage of apples. Augusta, 1918. (In Maine. Dept. Agr. Bul. v.17, no.3, Sept., 1918, p.77-81) 2 M28B

"General discussion of factors entering into successful marketing." - U. S. Dept. Agr. Library. Bibliographical contributions, no. 4, p.34.

Marble, L. M. Experiments with apples in common and cold storage. (In Ice and Refrigeration, v.67, no.3, Sept., 1924, p.156-161) 295.8 Ic2

"Results of experiments conducted at Marble Laboratory, Canton, Pa., and described in paper presented at Fourth International Congress of Refrigeration."

Marble, L. M. Specialized storage of fruits and vegetables... A preliminary statement regarding the life conditions of fruit and vegetables in storage, together with a statement regarding the Marble laboratory, inc. Canton, Pa., The Marble laboratory, inc., 1921. 10p. (Marble laboratory, inc. Report 1) 295.9 M32

Contains a brief description of the experimental cold storage laboratory.

Marble laboratory, inc., Canton, Pa. Studies in apple storage, Canton, Pa., The Marble laboratory, inc. 1923. (Reports 2-4) 295.9 M32

Report 2, by J. R. Magness and A. M. Burroughs, and Report 3, by A. M. Burroughs, are in Storage Investigations, 1921-1922, p.17-138. Report 4, by L. M. Marble, is issued as a separate report.

Markell, E. L. Some results of apple storage investigations by the United States. (In Better Fruit, v.10, no.5, Nov., 1915, p.19-26) 80 B46

Markell, E. L. The sorting, sizing, packing and storing of fruit. (In Peninsula horticultural soc. Trans., 1916, p.41-47. [Del. State Bd. Agr., v.5, no.3, Mar. 31, 1916]) 81 P37

"A popular paper on the handling and storing of apples in which some of the results are given of storage investigations conducted by the U. S. Department of Agriculture." - Experiment Station Record, v.35, p.342.

Mauro, Francesco. Impianti frigoriferi rurali per la conservazione, della frutta. 1920. 15p. (Milan. R. Scuola superiore di agricoltura. Stazione sperimentale del freddo. [Publication] no. 1) 295.9 M58

"Plan and elevation drawings of two farm refrigerating plants are given and the general features of the refrigerating apparatus discussed." - Experiment Station Record, v.45, p.591.

Mauro, I. Applicazioni del freddo alle industrie agrarie. La conservazione delle fragole. (In L'Agricoltura Moderna, v.19, no.23, Dec.1-15, 1923, p.270-271) 16 Ag823

Application of cold in the agricultural industry. The conservation of strawberries. - Translated title.

Overholser, E. L. Cold storage as an aid to the marketing of plums. - A progress report. Berkeley, 1922. (Calif. Agr. Exp. Sta. Bul. 344, p.427-463)

"Data are presented upon an investigation begun in the summer of 1918 and carried on through 1919 and 1921, in which plums of different varieties harvested at the University Farm were shipped immediately to Berkeley and there placed in cold storage to determine their keeping capacities." - Experiment Station Record, v.48, p.39.

Overholser, E. L. Keeping pears sound. (In California Countryman, v.8, no. 7, Nov., 1922, p.3-4) 6 Un34

"Pollination, temperature and degree of maturity at time of harvest are factors which the grower must consider when picking pears for cold storage" - Alternative title. Average storage dates for certain varieties of pears are given in a table.

Overholser, E. L., and Latimer, L. P. The cold storage of pears. Berkeley, 1924. 56p. (Calif. Agr. Exp. Sta. Bul. 377; summarized in Ice and Refrigeration, v.67, no.6, Dec., 1924, p.431-434) 295.8 Ic2

"Composed largely of data on the behavior in cold storage of individual varieties of pears, this bulletin also discusses several factors concerned in pear storage." - Experiment Station Record, v.52, p.342.

Overholser, E. L., and Taylor, R. H. Ripening of pears and apples as modified by extreme temperatures. (Botanical Gazette, v.69, no. 4, April, 1920, p.273-296) 450 B652

"A detailed report on storage experiments with pears and apples." - Experiment Station Record, v.45, p.346.

Powell, G. H. Relation of cold storage to commercial apple culture. Washington, 1904. (In U. S. Dept. Agr. Yearbook, 1903, p.225-238)

"The apple industry in 1903. Markets, marketing, cold storage development and the proper harvesting and handling of apples." - U. S. Dept. Agr. Library. Bibliographical Contributions, no.4, p.6.

Powell, G. H., and Fulton, S. H. The apple in cold storage. Washington, 1903. 64p. (U. S. Dept. Agr. Bur. Plant Industry. Bul. 48)

"Description of a comprehensive series of experiments on various varieties of apples from several states when held in cold storage. Culture of fruit, maturity, packages, size of fruit, temperatures, and scald." - U. S. Dept. Agr. Library. Bibliographical Contributions, no. 4, p.6.

Powell, G. H., and Fulton, S. H. Cold storage with special reference to the pear and peach. Washington, 1903. 28p. (U. S. Dept. Agr. Bur. Plant Industry. Bul. 40)

"Discussion of results of experiments with picking and packing pears and peaches for storage; temperatures." - U. S. Dept. Agr. Library. Bibliographical Contributions, no.4, p.6.

Smith, Edwin. Storage of fruits and vegetables. Chicago, 1923. 40p. (Amer. Institute of Agriculture. Marketing fruits and vegetables. Lesson 4) 280.3 Am34F

Discusses selection of a cold storage plant, construction features of three types of storage, special storage requirements, etc.

Smith, Edwin, and Creelman, J. M. Precooling, shipment and cold storage of tender fruit. Ottawa, 1916. 35p. (Canada. Dept. Agr. Dairy and Cold Storage Commissioner's Branch. Bul. 48) 44.9 Cl6B

"Results of warehouse precooling; time required for precooling; storage life; the effect of rapid vs. gradual precooling on cherries, peaches, plums, pears." - U. S. Dept. Agr. Library. Bibliographical Contributions, no.4, p.8.

South Africa. Department of agriculture. Fruit fly and cold storage. (In its Jour. v.7, no.4, Oct., 1923, p.364-365) 24 Um3

"This is an account taken from a report by C. P. Lounsbury made to the Secretary of Agriculture...[that] fruit-fly larvae may live in cold storage at about 34 degrees for six weeks, and then successfully transform to flies." - Experiment Station Record, v.50, p.359.

South Africa. Department of agriculture. Report on cold storage conditions for export fruit at Capetown; by I. B. Pole Evans. Pretoria, 1920. 9p. (No.2, 1920) Pam. Coll.

A report of an investigation undertaken to discover the cause of wastage in citrus fruit shipped for export in 1919.

Stubenrauch, A. V. Storage and refrigeration of fruits and vegetables. (In Bailey, L. H. Standard cyclopedia of horticulture. N.Y., Macmillan company, 1917, v.6, p.3245-3259) 90 C99S

"Systems of cold and common storage; insulation; temperatures for fruits and vegetables; maturity and methods of handling fruits and vegetables for storage." - U. S. Dept. Agr. Library. Bibliographical Contributions, no.4, p.8.

Stubenrauch, A. V., and Ramsey, H. J. Bartlett pear precooling and storage investigation in the Rogue River Valley. Washington, 1913. (In U. S. Dept. Agr. Bur. Plant Industry. Circ. 114, p.19-24)

Report of an investigation made during the season of 1912.

Taylor, W. A. The influence of refrigeration on the fruit industry. Washington, 1901. (In U. S. Dept. Agr. Yearbook, 1900, p.561-580)

"The historical development of cold storage. Effects of cold storage and the refrigerator car upon the development of the fruit indus-

try." - U. S. Dept. Agr. Library. Bibliographical Contributions, no.4, p.8.

Whitehouse, W. E. Cold storage for Iowa apples. Third progress report. Ames, 1919. p.179-216. (Iowa.Agr. Exp. Sta. Bul. 192)

This bulletin "covers work which has been in progress during the past five years and deals with several questions: The temperature of fruit before and after storing; humidity of storage rooms; maturity of fruit when stored; size of apples; wrapping paper used in packing, and methods of storing; the control of certain apple rots which are liable to develop in storage, and the rate of cooling of apples when put into cold storage."

Wright, P. C., and Taylor, G. F. The freezing temperatures of some fruits, vegetables, and cut flowers. Washington, 1923. 8p. (U. S. Dept. Agr. Bul. 1133)

"This bulletin gives the results of a portion of the work carried on under the projects 'Factors affecting the storage life of vegetables' and 'Factors affecting the storage life of fruits': p.1.

Meat

Bidault. Les moisissures des viandes congelées. (In Société Scientifique d'Hygiène Alimentaire et de l'Alimentation Rationnelle de l'Homme. Bul. v.10, no. 1, 1922, p.12-25) 389.9 SolB

"The relative occurrence and most interesting biological characteristics of these molds [several which the author isolated from cold storage meat] are described, and methods aiming at the prevention and treatment of such contamination are discussed." - Experiment Station Record, v.48, p.258.

Brooks, F. T., and Hansford, C. G. Mold growths upon cold-store meat. London, 1923. 142p. (Gt. Brit. Food Investigation Bd. Special report 17; also in British mycological society. Trans. 8, 1923, pt.3, p.113-142) 389.9 G792 451 B76

"This work supplements a previous one on the black spot of chilled and frozen meat by describing other molds which were found during the course of the work." - Experiment Station Record, v.50, p.763.

Brooks, F. T., and Kidd, M. N. The "black spot" of chilled and frozen meat. London, 1921. 6p. (Gt. Brit. Food Investigation Bd. Special report 6) 389.9 G792

"This is the report of an investigation of the 'black spot' of chilled meat previously found by Massee to be caused by the growth of the fungus *cladosporium herbarum*." - Experiment Station Record, v.46, p.860.

Clifford, W. M. The effect of cold storage on the carnosin content of muscle. (In Biochemical Jour., v.16, no.3, 1922, p.341-343) 382 B52

"Determinations... of the carnosin content of fresh and cold storage meat are reported, the results of which indicate that there is a much lower carnosin content in cold-storage than in fresh-killed meat.

behind the saddle and inserted in the thoracic cavity." - Experiment Station Record, v.41, n.672.

Seed, W. F. The romance of the meat trade. (In Meat Trades' Jour. v.55, no.1775, May 4, 1922, p.844) 50.3 M16

...: A digest of Mr. Seed's address to the members of the Newcastle Rotary Club. "The romance of the meat trade... was bound up in the development of refrigeration, the mechanical products of cold."

Wright, A. M. Moulds on frozen meat. (In Soc. of Chemical Industry. Jour. [Trans.] v.42, no.50, Dec. 14, 1923, p.488t-490t) 382 M31

Relates the results of an investigation commenced in England during 1917 and continued in New Zealand from 1919 to the present time. - Adapted from the text.

Wright, A. M. The presence of vitamin B in frozen flesh food. (In Soc. of Chemical Industry. Jour. [Trans.] v.42, no.41, Oct. 12, 1925, p.403t-404t) 382 M31

"From the results of the experiments it is found that cold storage up to nine years at temperatures ranging from 2° to 15°F (-17° to -9°C) does not destroy, nor, as far as can be determined, does it affect the vitamin B of meats." - Text.

Poultry and Eggs

About eggs in storage and egg consumption this season. (In Reliable Poultry Jour. v.23, no.4, June, 1921, p.332-4) 47.8 B27

Contrasts reports of the U. S. Bureau of Markets and of W. F. Friebe, of Friebe & Sons, Inc., Chicago, Illinois, in regard to the consumption and storage of eggs during the first four months of 1921.

Almy, L. E., Macomber, H. I., and Hepburn, J. S. A study of methods of minimizing shrinkage in shell eggs during storage. (In Industrial and Engineering Chemistry, v.14, no.6, June, 1922, p.525-527) 381 J825

"The present study is preliminary to a general investigation of the cause and prevention of the development of cold storage odor and taste in eggs. It deals solely with the relative efficiencies of various sealing agents for preventing the escape of substances, mainly water and vapor, from within the shell." - p.525.

Benjamin, E. W. Marketing poultry products. N. Y., John Wiley & sons, inc., 1923. 323p. 47 B432

Preservation of eggs and poultry: p.141-170. This chapter includes such topics as Natural refrigeration, Mechanical refrigeration, Storage warehouses, Development of cold storage, Quality of refrigerator eggs, Representative costs of holding eggs in storage, etc.

Boston. City planning board. Market advisory committee. A summary of the market situation in Boston... Preliminary report... June, 1915. Boston, 1916. 175p. (Doc. 118 - 1915) 280.3 B65

Appendix IV, A study of some of the effects of cold storage on the egg trade of Boston, 1904-1913, by Albert Calder James: p.96-110. Exhibit A, Quincy Market Cold Storage and Warehouse Company, Boston, Mass.: p.111. Appendix C, Cases of eggs in cold storage in Boston, 1904 and 1913: p.113. Appendix K, Charts - Receipts: eggs in cold storage, consumption, 1904-1908, 1909-1913: p.125-126. Bibliography... IV, Cold storage of food products: p.159-164.

Browne, M. W. Cold storage of eggs: Factors which are important in the successful preservation of eggs in cold storage. (In Ice and Refrigeration, v.66, no.4, Apr., 1924, p.341-342; to be continued) 295.8 Ic2

Cites factors which are necessary "to insure good results in a refrigerated egg storage room."

Canada. Department of agriculture. Office of dairy and cold storage commissioner. Notes on the cold storage of eggs. Ottawa, 1921. 2p. (Circ.30) 44.8 C163

Gives notes on sanitation, condition of eggs, temperature, humidity, air circulation, ventilation, and packing.

La conservation des oeufs. (In Revue Scientifique, v.57, no.8, Apr., 1919, p.242) 473 R32

Describes a method of preserving the egg fresh and wholesome with all its qualities, discovered by Lescardé who found "that it is sufficient to combine refrigeration with preliminary sterilisation in a closed vessel... This method is already applied in several factories specially equipped for the purpose in France, Belgium and the United States."

Dryden, James. Bootlegging eggs. (In Country Gentleman, v.89, no.7, Feb. 16, 1924, p.6) 6 C633

A discussion of the Clairemont method of processing eggs and the unscrupulous dealers who remove the oil and sell the eggs as fresh.

Groesbeck, B., and Urner, F. G. Economic effect of cold storage upon the average price of eggs. N. Y., Joint commission cold storage warehousemen and affiliated industries, 1916. 10p. 295 G Pam. Coll.

Hastings, M. M. The egg trade of the United States. Washington, 1909. 34p. (U. S. Dept. Agr. Bur. Animal Industry. Circ. 140)

The cold storage of eggs: p.25-27. Brief discussion.

Hervey, G. W. Egg prices and cold storage holdings. New Brunswick, 1923. 4p. (N. J. Agr. Exp. Sta. Hints to Poultrymen, v.11, no.10, July, 1923)

"The interrelationship that existed between temperature at New Brunswick, N. J., cold storage holdings, and top wholesale prices on white eggs in New York has been worked out for the 4-year period, November, 1918, to October, 1922, in order to obtain an approximate indication of the relation between temperature and the factors of

price and storage. A summary of the data is presented graphically in three figures." - Experiment Station Record, v.49, p.794.

Jackson, H. W. Review of operations in storage eggs and frozen poultry. (In Reliable Poultry Jour. v.26, no.5, July, 1919, p.482,484,486)47.8
R27

"Covers operations during season of 1917-1918."

Jenkins, M. K. Commercial preservation of eggs by cold storage. Washington, 1919. 36p. (U. S. Dept. Agr. Bul. 775)

"The following phases of the problem were studied: (1) The relative keeping quality... (2) The relation of the month of storage to preservation. (3) Efficiency of the commercial grading of eggs for cold storage. (4) Analysis of bad eggs developing in commercially packed eggs during storage. (5) Relation of care in initial grading to the development of bad eggs during storage. (6) Rate of evaporation of moisture from eggs. (7) Rate of absorption of moisture by case and fillers. (8) Physical and chemical changes in eggs during storage. (9) Absorption of foreign flavors during storage": p.2.

Jenkins, M. K., and others. Effects of cold storage on shell eggs. (In Ice and Refrigeration, v.58, no.3, Mar., 1920, p. 140-147) 295.8 Ic2

"Presents general physical, bacteriological and chemical data pertaining to the preservation of eggs in commercial cold storage rooms held at temperatures of 29° to 32° F."

Jones, H. I., and DuBois, R. The preservation of eggs, including a bibliography of the subject. (In Jour. Industrial and Engineering Chemistry, v.12, no.8, Aug., 1920, p.751-757) 381 J825

"This article,, which includes a long bibliography, briefly explains the various methods which have been used for preserving eggs, such as cold storage, packing in air-tight substances, coating with impervious agents, and storing in solutions." - Experiment Station Record, v.46. p.876.

King, G. R. A modern egg and poultry storage plant. (In Ice, v.17, no.3, Oct., 1915, p.24-25) 295.8 Ic23

"Illustrations. Describes the plant of the Moultrie Packing Co., Moultrie, Ga.... Goes into the causes that lead to its establishment."

Lay, O. T. Temperature and relative humidity in cold storage plants for eggs and candy. (In U. S. Dept. Agr. Weather Bur. Monthly Weather Rev., v.48, no.12, Dec., 1920, p.713-714)

"An account of the writer's experience in an investigation of aqueous vapor in its relation to certain cold storage problems."

Lythgoe, H. C. Tests of storage and fresh eggs. (In Amer. Food Jour. v.14, no. 1, 1919, p.15; abstracted in Chemical Abstracts, v.13, no. 10, May 20, 1919, p.1105) 389.8 Am33 381 Am33C

Lythgoe, H. C. Violations of the Massachusetts cold-storage egg law and method of control exercised by the state department of health. (In *Commonwealth*, v.5, no.11, Nov., 1918, p.328-332) 449.7 M382P
Includes comparison of analyses of fresh eggs and cold storage eggs, 1918.

Macomber, H. I. Notes on the preservation of eggs. (In *Amer. assoc. of instructors and investigators in poultry husbandry. Jour.* v.5, no.9, June, 1919, p.71-72) 47.8 Am33

"In the course of an investigation of the value of different methods of treating eggs for preservation, particularly in cold storage, paraffin was found to have a decidedly detrimental effect on eggs." - *Experiment Station Record*, v.42, p.212.

Minnesota. Dairy and food department. Sale of cold storage eggs... Act to prohibit the sale or advertising for sale of cold storage eggs without making it known to the purchaser or prospective purchaser, that they are cold storage eggs. Approved Feb. 25, 1915. [St. Paul] 1915. 1 leaf. (Its *Bul.* 58) 389.49 M66B

Moran, T., and Piqué, J. The cold storage of eggs. (In *Cold Storage and Produce Review*, v.28, no.322, Jan., 1925, p.9-11) 295.8 C672

Discusses consumption and price, time for storage, cleanliness, storage temperature, etc.

New York (State) Department of farms and markets. Division of foods and markets. Egg marketing - the consumer's viewpoint. 40p. (Its *Foods and Markets*, v.2, no.17, Jan., 1920) 280.38 F73

Fraud in the sale of eggs: p.28-32. The function of cold storage: p.32-38. Holdings in public cold storage warehouses in New York State on December 1, 1919, compared to those on November 1, 1919, and on December 1, 1918: p.40.

Oldham, J. Cold storage of eggs. (In *Ice and Cold Storage*, v.25, no.290, May, 1922, p.111-113; also in *Refrigerating World*, v.57, no.7, July, 1922, p.23-24) 295.8 Ic22 295.8 C67

Mainly a report of a paper, Notes on the Storage of Perishable Produce, with Special Reference to Eggs, by Mr. J. Oldham, presented at the meeting of the Cold Storage and Ice Association, April 10, 1922. Deals principally with the preservation of eggs and gives notes on temperature and humidity, air circulation, etc.

Opperman, C. L. Eggs and the cold-storage ogre. (In *Country Gentleman*, v.84, no.48, Nov. 29, 1919, p.8,48-49) 6 C833

Opperman, C. L. Frozen poultry. (In *Country Gentleman*, v.84, no.50, Dec. 13, 1919, p.33,62-63) 6 C833

Discusses "the results of government tests with drawn and undrawn fowls."

Pennington, M. E. Changes taking place in chickens in cold storage. Washington, 1908. (In U. S. Dept. Agr. Yearbook, 1907, p.197-206)

"A summary and discussion of data obtained in a study of the appearance and characteristics of freshly killed fowls and poultry stored respectively ten months, two years and three years." - Experiment Station Record, v.20, p.258.

Pennington, M. E. Effect of ventilation on the keeping quality of eggs in cold storage. (In Marble Laboratory, inc. Storage Investigations, 1921-1922. Canton, Pa. [1923?] p.3-13) 295.9 M32

"In the experiment here discussed temperatures between 29° and 31°F. were maintained continuously."

Pennington, M. E. Preservation of eggs by cold storage. (In Amer. warehouseman's assoc., Proc., 1917, p.331-338) 297.9 Am32

"A very valuable paper full of data of interest." - Bibliography of American literature relating to refrigeration... 1916 and 1917, p.144.

Pennington, M. E. Studies of eggs in cold storage in relation to top layer. (In Ice and Refrigeration, v.67, no.3, Sept., 1924, p.143-148) 295.8 Ic2

"Results of investigations showing the changes in weights of eggs and of packages. Conditions in storage warehouse more vital than minor modifications in the packages. Quality of eggs studied. Type of package used. Type of warehouse selected. Conduct of experiments."

Pennington, M. E. Studies of poultry from the farm to the consumer. Washington, 1910. 42p. (U. S. Dept. Agr. Bur. Chemistry. Circ.64)

Includes a review of the scientific work done in the United States; Industrial application of refrigeration (chilling, frozen poultry, refrigeration of eggs, etc.); and scientific data applied to the industrial use of refrigeration.

Pennington, M. E., and Horne, G. A. Effect of storage conditions upon keeping quality of eggs. (In Ice and Refrigeration, v.67, no.4, Oct., 1924, p.217-223) 295.8 Ic3

"Results of investigations as to the relation of conditions in egg storage rooms to the flavor of the egg, development of mold, and loss of moisture from the egg, as presented in paper at fourth International Congress of Refrigeration."

Pennington, M. E., and Sherwood, C. M. The greening of poultry. (In Poultry Science, v.1, no.4, Apr.-May, 1922, p.114-124) 47.8 Am33P

"Studies from the Bureau of Chemistry, U. S. D. A., are reported on the greening of poultry during storage." - Experiment Station Record, v.47, p.673.

Pennington, M. E., and others. The influence of temperatures above freezing on the changes in chemical composition, bacterial content, and histological structure of the flesh of the common fowl. (In Jour. Biological Chemistry, v.29, 1917, p.XXXI-XXXIV) 381 J824

"A brief report of chemical, bacteriological and histological studies of chickens which, after having been frozen hard, were stored at temperatures varying from -9 to -13°C. for periods as long as two years." - Experiment Station Record, v.37, p.62.

Pennington, M. E., and others. A study of the preparation of frozen and dried eggs in the producing section. Washington, 1916. 99p. (U. S. Dept. Agr., Bul. 224)

"This report is based on observations made in establishments scattered between northwestern Iowa and central Kansas. The work began in the spring of 1911 and was maintained during the egg-breaking season; that is, until early September. It was continued, also, throughout the season of 1912."

Poultry refrigeration. (In Ice and Refrigeration, v.48, no.6, June, 1915, p.350-355) 295.8 Ic2

"Description with illustrations of a modern poultry freezing and storage plant. [The Storer Brothers Co., Ada, Ohio] Details of building and equipment. Quantity of poultry and eggs handled."

Redfield, H. W. Examination of frozen egg products and interpretation of results. Washington, 1920. 96p. (U. S. Dept. Agr. Bul. 846)

"Consists of outlines of standard methods found suitable by the Bureau of Chemistry for the chemical and bacteriological examination of frozen egg products to determine the presence of decomposed material, and a demonstration that the methods selected give concordant results in the hands of different analysts and in the examination of material of given quality from diverse sources." - Experiment Station Record, v.43, p.414.

Rintoul, A. V. D. Egg pulp and cool storage. (In Victoria. Dept. Agr. Jour. v.17, pt.11, Nov. 1919, p.676-681) 23 V66J

The author discusses the preservation of eggs, basing his remarks, in part, on the bulletins of the U. S. Department of Agriculture.

Roberts, H. A. The poultryman's complaint. (In Country Gentleman, v.82, no.44, Nov. 3, 1917, p.13-14) 6 C833

A plea for poultrymen to put their eggs in cold storage as the middlemen do.

Stiles, G. W., and Bates, Carleton. A bacteriological study of shell, frozen, and desiccated eggs; made under laboratory conditions at Washington, D. C. Washington, 1912. 36p. (U. S. Dept. Agr. Bur. Chemistry. Bul. 158)

"The object of this report is to present briefly the data obtained during these investigations and to offer a few suggestions to the trade which may be of value in correcting some of the existing practices and conditions which are at least partially responsible for the unsatisfactory products now found on the markets."

U. S. Congress. Senate. Committee on agriculture and forestry. Frozen eggs. Hearings... on H. R. 9521, a bill to prevent hoarding and deterioration of, and deception with respect to, cold-storage foods, to regulate shipments of cold-storage foods in interstate commerce and for other purposes. Washington, Govt. print. off., 1921. 40p. 295 Un33F

Waite, N. J. Direct expansion piping in egg rooms. (In A.S.R.E. Jour. July, 1920, p.41-47) 295.8 Am32J

A reprint of a paper, with discussion, which was read at the seventh western meeting, St. Louis, Mo., May 26-28, 1920. A further discussion of this subject at a later meeting of the society is found in the Journal for July, 1921, p.19-22.

Wiley, H. W. A preliminary study of the effects of cold storage on eggs, quail and chickens. Washington, 1908. 117p. (U. S. Dept. Agr. Bur. Chemistry. Bul. 115)

"A study of the effects of cold storage... To ascertain in so far as possible the kinds and character of food products kept in cold storage... To ascertain the minimum, maximum and average length of time which such products were kept in cold storage... To ascertain the usual temperatures at which foods were held in cold storage."

Bibliographical footnotes.

Vegetables*

Aldrich, P. H. The winter storage of roots. Burlington, 1917. (In Vt. Agr. Exp. Sta. Bul. 203, p.3-9)

"Concerning the loss in weight and the decay of roots in various forms of storage and packing mediums. Edibility of stored vegetables." - U. S. Dept. Agr. Library. Bibliographical Contributions, no.4, p.9.

Back, E. A. Weevils in beans and peas. Washington, 1922. 35p. (U. S. Dept. Agr. Farmers' Bul. 1275)

Remedies - cold and cold storage: p.31-32.

"Investigations conducted in this bureau [Bureau of Entomology] and not yet completed indicate that no stage of the common bean weevil can withstand 56 days of cold storage at 31° to 32°F., although they may survive more than 66 days at 36°F.": p.31.

Back, E. A., and Duckett, A. B. Bean and pea weevils. Washington, 1918. 24p. (U. S. Dept. Agr. Farmers' bul. 983)

Cold and cold storage as remedies for losses caused by bean and pea weevils are briefly discussed in a paragraph on p.24.

*The publications of the following authors dealing with both fruits and vegetables have been listed under Fruits: Lloyd, J. W.; Marble, L. M.; Smith, Edwin; Stubenrauch, A. V.; Wright, R. C.

Beattie, W. R. Celery growing. Washington, 1922. 32p. (U. S. Dept. Agr. Farmers' bul. 1269)

Storage: p.25-27. Storing under refrigeration, storage cellars and special celery houses without refrigeration, and home storage.

Boswell, V. R. Changes in quality and chemical composition of parsnips under various storage conditions. College Park, 1923. (Md. Agr. Exp. Sta. Bul. 258, p.61-86)

"Studies of a quantity of parsnips, part allowed to remain in the field, part held in artificial storage at 20 and 34°F., and part stored in an ordinary cellar. indicated that roots may be rapidly brought to a state of high table quality by placement in cold storage at from 32 to 34°." - Experiment Station Record, v.51, p.343.

Boswell, V. R. Influence of the time of maturity of onions on the behavior during storage, and the effect of storage temperature on subsequent vegetative and reproductive development. (In Amer. soc. for horticultural science. Proc., 20, 1923, p.234-239) 81 Sol2

"Deals with the behavior during and subsequent to storage at 32, 40, and 50°F. of early and late maturing onion bulbs gathered from the same original planting." - Experiment Station Record, v.52, p.235.

Diehl, H. C. The chilling of tomatoes. Washington, 1924. 6p. (U. S. Dept. Agr. Circ. 315; reprinted in Ice and Refrigeration, v.67, no.4, Oct., 1924, p.224-225) 295.8 Ic2

Report of experiments carried on in 1921 and 1922 which were carried on under the project Vegetable Storage Investigations.

Eustace, H. J. Report of the division of horticulture. Lansing, 1917. (In Mich. Agr. Exp. Sta. Report 1917, p.322-324)

Includes a brief report on experiments made "to determine what length of time asparagus would remain in wholesome condition when placed in commercial cold storage... Two methods were used... In 1915 the asparagus was stored over the ice in an ice house and in the egg room at the Lansing Cold Storage. In 1916 it was stored in the egg room only."

Garman, H. Observations and experiments on the bean and pea weevils in Kentucky. Lexington, 1917. (Ky. Agr. Exp. Sta. Bul. 213, p.307-333)

The effect of low temperature on weevils is tabulated: p.326-328.

Gilbert, W. W. Recent work on truck crop diseases affecting the quality of vegetables in storage. (In Amer. Assoc. Ice and Refrigeration. Proceedings... 1924, p.116-119; also published in Ice and Refrigeration, v.66, no.5, May, 1924, p.444-445, with title Truck Crop Diseases Affecting Vegetables in Storage) 295.9 Am3 295.8 Ic2

Refers briefly "to a few of the problems to which the Office of Truck Crop Disease Investigations has given attention and to some of the results secured."

Larson, A. O.; and Simmons, Perez. Insecticidal effect of cold storage on bean weevils. (In U. S. Dept. Agr. Jour. Agr. Research, v.27, no.2, Jan. 12, 1934, p.99-105)

The results of these experiments on *Bruchus obtectus* Say in California pink beans (*Phaseolus vulgaris*) and with *B. quadrimaculatus* Fab. in black-eye cowpeas or beans (*Vigna sinensis*) are presented in tabular form.- Adapted from note in Experiment Station Record, v.51, p.58.

Morse, F. W. Experiments in keeping asparagus after cutting. Amherst. 1917. (Mass. Agr. Exp. Sta. Bul. 172, p.297-307)

"Analysis and physiological study of asparagus under refrigeration." - U. S. Dept. Agr. Library. Bibliographical Contributions, no.4, p.10.

Price, J. C. C. Harvesting and storing sweet potatoes. Auburn, 1917. 22p. (Ala. Agr. Exp. Sta. Bul. 137; issued also as Bul. 137, Popular ed.)

"Tests with sweet potatoes stored in cold stores, banks and pits, show that cold storage is to be preferred. Plans for store house." - U. S. Dept. Agr. Library. Bibliographical Contributions, no.4, p.10.

Stuart, William. Potato storage and storage houses. Washington, 1917. 27p. (U. S. Dept. Agr. Farmers' bul. 847)

Types of storage... The artificially refrigerated storage house: p.21, 23. "The artificially refrigerated potato storage house is as yet hardly in existence."

Thompson, H. C. Celery storage experiments. Washington, 1917. 26p. (U. S. Dept. Agr. Bul. 579)

Results of experiments 1912-1916. Description of crates, effect of height of crates in storage rooms. "The storage of celery in cold-storage warehouses is a comparatively new undertaking, and for this reason very little definite information is available on this subject": p.25.

Miscellaneous

Back, E. A. Clothes moths and their control. Washington, 1923. 29p. (U. S. Dept. Agr. Farmers' bul. 1353)

Cold storage: p.17-19.

Back, E. A., and Cotton, R. T. Effect of cold storage on clothes moths. (In Amer. association of ice and refrigeration. Proc., 1924, p.60-62) 295.9 Am3

Short addresses which are followed by discussion.

Davel, J. W. T. Cold storage for cowpeas. Washington, 1905. (In U. S. Dept. Agr. Bur. Entomology. Bul. 54, p.49-54)

"Carefully conducted experiments, extending over a period of nearly two years, have shown that cowpeas can be kept free from weevils if stored at a temperature of 32° to 34°F.": p.49.

Gore, H. C. The cold storage of apple cider. Washington, 1910. 13p.
(U. S. Dept. Agr. Bur. Chemistry. Circ. 48).
"Report of investigations made by Bureau of Chemistry."

Marlatt, C. L. The true clothes moths. Washington, 1915. 8p. (U. S. Dept. Agr. Farmers' bul. 659)
"A reprint, with slight revision, of Circular No. 36, Bureau of Entomology, U. S. Dept. of Agriculture": p. 1.
Cold storage: p. 8. Tells of the most economical degree of cold to be used as a protection from clothes moths and allied insects destructive to woollens and furs, which has been definitely determined by careful experiments carried out by a manager of a large storage warehouse company in Washington, D. C.

O'Mahony, W. W. Refrigeration in French floriculture. (In Ice and Cold Storage, v. 28, no. 324, Mar., 1925, p. 55-57) 295.8 Ic22
Based for the most part on "a series of studies contributed by M. Rolet to La Vie Agricole."

Reid, W. C. Rise and development of cold storage of furs and fabrics. (In Ice and Refrigeration, v. 51, no. 5, Nov., 1916, p. 172-174) 295.8 Ic2

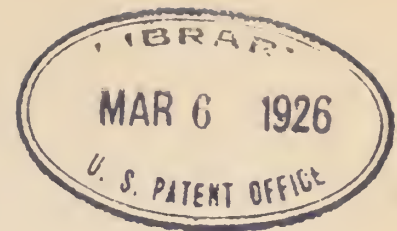
Russell, G. A. A study of the soft resins in sulphured and unsulphured hops in cold and in open storage. Washington, 1915. 19p. (U. S. Dept. Agr. Bul. 282)
"This bulletin presents the results obtained from experiments conducted to determine the extent and character of the changes in the soft resins in hops under varying conditions of curing and storage. The soft resins, or so-called bitter acids, are a principal factor in determining the commercial value of hops." - Footnote, p. 1.

Stockberger, W. W., and Rabak, Frank. Some effects of refrigeration on sulphured and unsulphured hops. Washington, 1912. 21p. (U. S. Dept. Agr. Bur. Plant Industry. Bul. 271)
"This bulletin shows that both refrigeration and sulphuring retard changes in the volatile constituents of hops and that the determination of the value of hops from the aroma varies according to individual preference for or dislike of one or the other of the aromatic constituents": p. 3.

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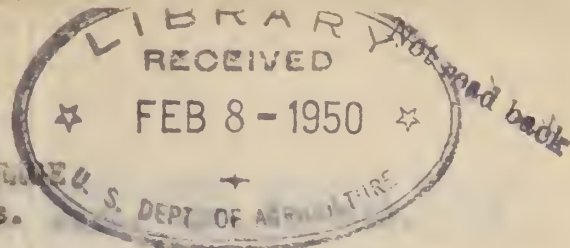
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A supplementary list of references to Bibliographical Contributions No. 10 of the Library of the United States Department of Agriculture compiled by Louise O. Barcaw, Library, Bureau of Agricultural Economics, April 27, 1929:

- Adam, D. B., and Harrison, J.E. Experiments in cold storage of apples. (In Victoria, Dept. of Agriculture. Journal, v. 23, Apr. 1925. p. 226-234)
- Baker, C. E. Air-cooled apple storages. Lafayette, 1928. 24p. (Ind. Agr. exp. sta. Circ. 154)
- Culpepper, C.W., and Caldwell, J.S. Relation of atmospheric humidity to the deterioration of evaporated apples in storage. (In U.S. Dept. agr. Journal of Agricultural Research, v. 35, Nov. 15, 1927. p. 889-906)
- Dana, H. J. Report on survey of fruit cold storage plants. (Pullman, Wash., 1928) 15p. (Washington (State) State college. Engineering experiment station. Engineering bul. 24)
- Gates, H.B. Insulation insures economy in the fruit storage house. (In American Fruit Grower, v. 48, Oct. 1928, p. 5)
- Gunness, C.I. Ice cooling applied to apple storage. (In Agricultural Engineering, v. 9, May, 1928, p. 149-150)
- Harrison, J.E. Cold storage of pears. (In Victoria. Dept. of Agriculture Journal, v. 23, Oct. 1925, p. 603-607)
- Harrison, J.E. Jonathan apple in cool storage. (In Victoria. Dept. of Agriculture. Journal, v. 24, Jan. 1926, p. 31-38)
- Hawkins, L.A., and Barger, W.R. Cold storage of Florida grapefruit. Washington, 1926. (U.S. Dept. Agr. Bul. 1368)
- Ki, Franklin, and others. Gas storage of fruit; the use of artificial atmospheres of regulated composition, either alone or in conjunction with refrigeration, for the purpose of preserving fresh fruit during overseas transport or in land stores. London, H.M. Stationary office, 1927. 87 p. (Gt. Brit. Food investigation board. Special report 30)
- Knibbs, G. Cold storage of fruit. (In Queensland Agricultural Journal, v. 23, Jan. 1925, p. 48-52)
- Magness, J.R., and others. The ripening, storage and handling of apples. Washington, 1926. 64 p. (U.S. Dept. Agr. Dept. bul. 1406)
"Literature cited:" p. 64.
- Marshall, R. E. Air-cooled storage for apples. East Lansing, 1925. 54 p. (Mich. Agr. exp. sta. Special bul. 146)

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- Meeking, E. Cool storage of apples. (In Victoria. Dept. Agr. Journal, v. 26, Oct. 1928, p. 609-617)
- Morris, O. M. Studies in apple storage. Pullman, 1925. 44p. (Wash. Agr. Exp. Sta. Bul. 193)
Bibliography; p. 44.
- Overholzer, E. L. Cold storage versus room temperatures on keeping qualities of fruits. (In Science, n.s., v. 66, Dec. 30, 1927, p. 660-661)
- Pailthorp, R.R. Handling apples for, and in, storage. (In Canadian Horticulturist, v. 48, Nov. 1925, p. 241-242)
- Pinn, A. J. Cold storage of potatoes; with discussion. (In Agricultural Gazette of New South Wales, v. 39, Feb. 1928, p. 140-146)
- Plagge, H.H., and Maney, T.J. Cold storage investigations with Wealthy apples. Fifth progress report. Ames, 1925. p. 59-72. (Iowa Agr. Exp. Sta. Bul. 230)
- Plagge, H.H., and Maney, T. J. Soggy breakdown of apples and its control by storage temperature. Ames, 1928. (Iowa Agr. exp. sta. Research bul. 115) p. 63-116.
Bibliography: p. 115-116.
- Ramsey, G. B., and Butler, L. F. Injury to onions and fruits caused by exposure to ammonia. (In U.S. Dept. agr. Journal of Agricultural Research, v. 37, Sept. 15, 1928, p. 339-348)
- Smith, A.J.M. Temperature conditions in refrigerated holds carrying apples. London, H.M. Stationery office, 1926. 52 p. (Gt. Brit. Dept. of scientific and industrial research. Food investigation. Special report 27)
- Smith, A.J.M. Temperature conditions in small cold storage chambers containing fruit. London, H.M. Stationery office, 1926, 37p. (Gt. Brit. Dept. of scientific and industrial research, Food investigation. Special report 29)
- Smith, G.L. Air-cooled storage for apples, with discussion. (In Illinois state horticultural society. Rept. 1925, p. 298-304)
- Staley, J. F. Cold storage of fruits and vegetables. (In Power Plant Engineering, v. 30, Sept. 15, 1926. P. 1020-1021)
- Thayer, P. Loading baskets of fruit and vegetables into cars. Agricultural College, 1928. 12p. (Pa. Agr. exp. sta. Circ. 116)
- Tindale, G.B., and French, C. Grubs in dried fruits. (In Victoria. Dept. Agr. Journal. v. 25, July, 1927, p. 411-413)

Weeks, E. Cool storage of apples. (In Victoria. Agric. Journal, v. 25, Oct. 1926, p. 603-617)

Wright, O. W. Studies in apple storage. Bulletin, 1925. 44p. (Wash. Agr. Exp. Sta. Bul. 1925) Bibliography: p. 44.

Overholzer, E. J. Cold storage versus room temperatures on keeping qualities of fruit. (In Science, n.s., v. 50, Dec. 30, 1927, p. 600-601)

Wright, O. W. Handling apples for, and in, storage. (In Canadian Horticulturist, v. 48, Nov. 1925, p. 241-242)
Wright, O. W. Cold storage of apples; with discussion. (In Agricultural Gazette of New South Wales, v. 39, Nov. 1925, p. 140-145)

Wright, O. W., and Wain, T. J. Cold storage investigations with varying apples. Fifth progress report. 1925. p. 7-72. (Iowa Agr. Exp. Sta. Bul. 1925)

Wright, O. W., and Wain, T. J. Storage of apples and the control of storage temperature. 1925. (Iowa Agr. Exp. Sta. Bul. 1925) Bibliography: p. 115-116.

Wright, O. W., and Wain, T. J. Injury to apples and fruit caused by exposure to extremes. (In U.S. Dept. Agr. Journal of Agricultural Research, v. 27, Sept. 15, 1925, p. 339-348)

Wright, O. W. Temperature conditions in refrigerated boxes carrying apples. London, H.M. Stationery Office, 1926. 52 p. (Agr. Bul. Dept. of Scientific and Industrial Research, General report 27)

Wright, O. W. Temperature conditions in small cold storage chambers containing fruit. London, H.M. Stationery Office, 1926. 57p. (Agr. Bul. Dept. of Scientific and Industrial Research, Food investigation, General report 28)

Wright, O. W. Air-cooled storage for apples, with discussion. (In Illinois Horticultural Society. Report, 1925, p. 298-304)

Wright, O. W. Cold storage of fruit and vegetables. (In Iowa Agr. Exp. Sta. Bul. 1925, v. 30, Sept. 15, 1926, p. 1020-1021)

Wright, O. W. Loading of fruit and vegetables into cars. Agricultural College, 1928. 12p. (Iowa Agr. Exp. Sta. Circ. 110)

Wright, O. W., and Wain, T. J. Grapes in cold storage. (In Victoria. Agric. Journal, v. 25, July, 1927, p. 411-413)

U.S. Department of agriculture. Cold storage holdings, year ended December 31, 1927; with comparable data for earlier years. Washington, 1928.; 32p. (Its Statistical bul. 26)

Waters, R. Flesh collapse in Sturmer apples. (In New Zealand Journal of Agriculture, v. 36, Feb. 1928, p. 88-91)

Williams, W. J. Cold storage of onions; experiments carried out at the municipal cold-storage works, Sydney. (In Agricultural Gazette of New South Wales, v. 40, Jan. 1929, p. 43-44)

Wright, R. C. Some effects of freezing on onions. Washington, 1927. 8 p. (U.S. Dept. agr. Dept. circ. 415)

U.S. Department of Agriculture. Cold storage holdings, year ended December 31, 1927; with comparable data for earlier years. Washington, 1928. 12p. (Miscellaneous publications, 26)

Wright, R. V. Plant diseases in storage. (In the Journal of Agriculture, v. 30, Feb. 1928, p. 33-41)

Williams, W. J. Cold storage of onions; experiments carried out at the Municipal cold-storage works, Sydney. (In Agricultural Gazette of New South Wales, v. 40, Jan. 1929, p. 43-44)

Wright, R. V. Some effects of freezing on onions. Washington, 1927. 8 p. (U.S. Dept. Agr. Rept. also 412)

Wright, R. V. Some effects of freezing on onions. Washington, 1927. 8 p. (U.S. Dept. Agr. Rept. also 412)

Wright, R. V. Some effects of freezing on onions. Washington, 1927. 8 p. (U.S. Dept. Agr. Rept. also 412)

Wright, R. V. Some effects of freezing on onions. Washington, 1927. 8 p. (U.S. Dept. Agr. Rept. also 412)

Wright, R. V. Some effects of freezing on onions. Washington, 1927. 8 p. (U.S. Dept. Agr. Rept. also 412)

Wright, R. V. Some effects of freezing on onions. Washington, 1927. 8 p. (U.S. Dept. Agr. Rept. also 412)

Wright, R. V. Some effects of freezing on onions. Washington, 1927. 8 p. (U.S. Dept. Agr. Rept. also 412)

Wright, R. V. Some effects of freezing on onions. Washington, 1927. 8 p. (U.S. Dept. Agr. Rept. also 412)

Wright, R. V. Some effects of freezing on onions. Washington, 1927. 8 p. (U.S. Dept. Agr. Rept. also 412)

Wright, R. V. Some effects of freezing on onions. Washington, 1927. 8 p. (U.S. Dept. Agr. Rept. also 412)

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